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ABSTRACT

The cooperative education programs provided by the three community colleges which comprise the San Mateo Community College District (California) offer three alternative plans: (1) Alternate Semester--two students hold one full-time job during the year, each spending one semester on campus and one off campus; (2) Parallel--concurrent part-time work experience and on-campus classwork; (3) New Careers--a career development plan for evening students who hold full-time jobs. The New Horizons in Cooperative Education project was designed to research and develop a number of innovations in cooperative education, including measurable learning objectives on the job, comprehensive liberal arts/vocational programs, improved methods of sharing results, and trends of the future. This report evaluates the effectiveness of the project in terms of 18 factors (student retention, academic success, cost effectiveness, etc.). As a means of providing information about various innovations occurring within this project, a sampling of information is provided throughout the remainder of the report in the form of 11 Progress Indicators. These brief sections provide a closer look at selected New Horizons activities. (NHM)

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ED112984

PROJECT REPORT
Project No. J0042JG
Grant No. OEG-0-74-2450
Period Covered July 1, 1974 through June 30, 1975
Including Information Developed in Previous R & D Projects

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NEW HORIZONS IN COOPERATIVE EDUCATION

A Research and Development Project
Conducted under provisions of the Higher Education Act
of 1965 (PL 89-329) as amended, Title IV, Part D
Cooperative Education (PL 90-575 & 92-318)

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NEW HORIZONS OVERVIEW For the decade 1975-85 there is every indication that Cooperative Education will be at the center of innovative practices in higher education. Trends which point to (1) improved educational experiences for students, (2) direct participation in community activities while in college, (3) specialized training not possible to accomplish in traditional college classes, (4) financial earnings to pay for the high costs of education, and (5) increased success for non-traditional students can be achieved through combining college classroom studies with off-campus paid work experience. Particularly in the nation's community colleges there are growing opportunities for students to gain these advantages.

The NEW HORIZONS IN COOPERATIVE EDUCATION project was designed to research, develop, and share with others a number of innovations, most importantly the concepts of (1) measurable learning objectives on the job; (2) comprehensive liberal arts/vocational programs; (3) improved methods of sharing results with other coordinators; and (4) trends of the future, especially as noted for the western United States.

Results show that comprehensiveness is improved; retention of students is improved substantially; academic success while working, rather than diminishing as expected, is maintained or grows; continuing education for adult students on the cooperative plan is highly effective; new career opportunities are provided; total income earned by 2,325 students is in excess of $8,670,000; non-traditional college students show progress; affirmative-action opportunities for students as well as employers can be developed; employers are receptive to the program; veterans find the program particularly useful; training, upgrading, and re-training on the job can be accomplished; share-and-learn activities for 285 coordinators, faculty and students from other colleges were provided; and a look to the future suggests the need for a Western Regional Consortium to achieve college cooperative education goals.

INSTITUTIONAL DESCRIPTION

Canada College, College of San Mateo, and Skyline College of the San Mateo Community College District--California public community colleges--enrolled in 1974-75 a total of 28,458 students with an average daily attendance (full time equivalent students) of 16,636. Located immediately south of San Francisco, the college district has essentially the same geographical boundaries as San Mateo County. 564,500 people live in the direct service area of the three colleges. The San Francisco Bay Region with 4,200,000 residents serves as the broader area of career employment opportunities readily available to students.

The three colleges of the San Mateo District offer transfer options to upper division state colleges and universities, continuing education for adults, occupational education, special programs for non-traditional college students, television broadcast capability, off-campus classroom locations throughout the county, counseling and guidance, and a multitude of other educational services. Each institution is accredited by the Western Association of Schools and Colleges.

SAN MATEO COMMUNITY COLLEGE DISTRICT
COOPERATIVE EDUCATION ENROLLMENTS BY DIVISION

College of San Mateo

Aeronautics	24
Art	16
Biology	20
Business	213
General, Liberal Arts	373
Cosmetology	29
Dental Assisting	1
Engineering	20
Technical	31
Nursing	7
Physical Educ./Recreation	8
Social Science	104
Telecommunications	9
Total	855

Total Enrollment San Mateo Community College District: 2,325

Canada College

Management	111
Business	26
General, Liberal Arts	116
Special Education	17
Recreation	18
Food Technology	35
Administration of Justice	48
Nursery School Education	49
Mental Health	21
Urban Studies	38
Social Science	32
Education	9
Total	520

Skyline College

Business	267
General, Liberal Arts	207
Technical/Allied Health	95
Public Service	140
Physical Educ./Recreation	85
Extended Day, Evening	156
Total	950

THREE PATTERNS

To assure a comprehensive program which meets the needs of all Cooperative Education students, three patterns of cooperative work experience education programs have been developed. They are known as the Alternate Semester Program, the Parallel Program, and the Extended Day or Evening College Program. Each contains a necessary common element of coordination--an action link--between the on-campus instructional program and the field experience provided away from school.

The three plans which provide cooperative education work experience related to college studies and career goals of the students enrolled are:

Alternate Semester

Two students hold one full-time work station on a year-around basis. During each semester, one student is in school while the other works full-time. Working students may elect to enroll in a limited program of college studies. No limitation is placed on the location of the work experience. Students may be employed in other states or in distant cities. Employers are provided the equivalent of a full-time employee on a year-around basis.

Parallel Plan

Students hold part-time, afternoon, evening, or swing-shift jobs with appropriate community college class loads. Coordination, job placement, and counseling services are provided by the college.

Extended Day or Evening College New Careers

Special arrangements are made for college studies related to full-time employment and new career goasl of students. Employers cooperate in work assignments and supervision. As in the other plans, students are coordinated by the college.

Through community college cooperative education, students are attracted to career programs because of employment advantages and new learning opportunities. Open-ended curriculum arrangements allow these students to continue in full-time employment, or to move ahead into upper division studies in state colleges and universities.

RESEARCH LOOKING TO THE FUTURE, NEW HORIZONS IN COOPERATIVE EDUCATION

As the result of research studies from 1972-75 on community college cooperative education--including liberal arts, vocational-technical, and general studies--there is new evidence which points to the future. Eighteen areas of development have been observed. Attention for the most part has been directed to (1) improving comprehensiveness of the overall program, and (2) establishing innovative new approaches to the cooperative education process.

1. Comprehensiveness of cooperative education programs is improved as the result of New Horizons stimulus funding.

   Effective low-cost procedures have been developed to maintain a balance between vocational cooperative education and general or liberal arts cooperative education, particularly that which leads to upper division studies in state colleges and universities.

   Comprehensiveness is improved as the result of applying limited funding for special groups "piggybacked" on larger program activities already established. It has been demonstrated that relatively small investments in cooperative education directed towards students with educationally and economically deprived backgrounds in transfer programs--when combined with vocational programs--substantially increases effectiveness of both programs. Student and faculty interest in cooperative education is improved as programs grow to involve all academic divisions.

2. Retention of students is improved by a factor of more than two to one.

   Further evidence resulting from analysis of New Horizons data for 1974-75 continues to indicate that overall retention rates in regular courses in three colleges are 65-75%. The median rate of class withdrawal is 32% for all students, as compared to 15% for co-op students. In other words, for every two students who leave traditional programs in community college before completion, only one cooperative education student leaves before completion. Evidence from three evening college programs provides further indication that retention for these adults students is improved even more that day students. One college, for example, reports that the class withdrawal rate for all evening college students is 35%; compared to only 5% for evening college cooperative education students.

   Another college report shows a retention percentage over the period of one semester for the entire student population of 87%--a drop-out rate of 13%--as compared to 95% (5% dropout) for cooperative education students. This report was provided from data comparing fourth week and final enrollments.

Comparing data compiled over a longer span of time, it is indicated that a 33% to 40% withdrawal rate applies to overall day and evening courses as compared with 13% withdrawal rate in cooperative education--a retention improvement factor of 3 to 1.

Another comparison over a two-semester period indicates 91% retention for cooperative education enrollments, as compared to 70% for all regular courses over the same period of time. This dropout ratio of 9 to 30 is a greater than 3 to 1 improvement. It is evident, therefore, as indicated by evidence from 1974-75 as well as earlier studies, that retention--a significant problem for community colleges--can be improved substantially by the involvement of students in cooperative education.

3. Academic success, rather than diminishing, is in fact maintained or improved while enrolled in cooperative education in community colleges.

Observing grade point distributions day and evening, it is evident that cooperative education employment does not detract from academic standings. More often than not it brings about improvement of grades. This tendency probably occurs as the result of increased motivation and new learning opportunities found in the community.

Evidence is provided by the following statements from college reports over the past three years.

"Cumulative Grade Point Averages for cooperative education program students (N - 863) is 2.57; total student population exclusive of cooperative education students is 2.35 for fall semester."

"13 (40%) of the 33 scholarship winners at Canada College for 1973-74 completed at least one semester of cooperative education."

"Data on Grade Point Averages (GPA) of 950 students in fall and spring semesters indicates that cooperative education employment does not detract from academic standing."

	Co-op	All Students
Semester GPA (Median)	2.28	2.00
Semester GPA (Mean)	2.59	2.66
Semester GPA (Mean, 12-15 units)	2.71	2.66

"Comparing letter grades in ten divisions, day and evening college, between students enrolled in cooperative work experience education (N = 1,250) and students not enrolled in co-op, it is apparent that co-op students maintain grade averages as high or higher than other students. Grades do not go down as the result of working in cooperative education assignments."

"Percentage of general student population (not including co-op) on Dean's list is 37%;
Percentage of co-op students on Dean's list for high academic performance is 47%.

Summarizing, it is quite apparent that learning through work experience in a coordinated program of cooperative education does not cause grades to drop. Contrary to often-expressed concern about distraction from learning while working during college, there is substantial evidence to show that the opposite is true if the education program is arranged in the manner of cooperative education.

4. Continuing Education for adult students through cooperative education is proving to be highly effective.

From the standpoint of under-employed or unemployed adults in the community, cooperative education can be the means of training, re-training, and upgrading for those who need more education. Changing employment patterns of the future no doubt will require the kind of training flexibility which is associated with the cooperative education design.

The combination of work and study for adult continuing education is one which might be designated alternate-emphasis. Adults, fully employed, attend college classes one or more evenings per week. Credit for cooperative work experience is assigned through college coordination, including employer supervision and related college classes. The pattern of credit is maintained at a ratio of three academic credits per one work experience credit.

An Associate Degree Program of 60 or more semester hours might include as much as 16 semester hours of credit for advancing work experience based upon measurable learning objectives.

5. New career education opportunities for students are provided.

It is estimated that the range of career education options available to students is doubled through cooperative education. This occurs without substantially changing the college classroom component of the educational program.

Students are able to move into unique job preparation opportunities through work experience in new areas not previously available to unskilled workers. Unique opportunities are provided as, for example, special cooperative education opportunities for hearing-impaired students, Learning Center support for co-op educationally disadvantaged students; revision of many law enforcement and fire science training programs to take advantage of community college cooperative education; new public service career opportunities in mental health and child care; and student work experience in places such as Los Angeles, Sacramento, and Washington, D. C.

6. Total income earned by students in one year, as the result of community college cooperative education paid work experience at Canada College, College of San Mateo, and Skyline College during 1974-75 was in excess of $8,670,000.

2,325 students in cooperative education earned an average of $2.96 per hour from their employers while working an average of 30 hours a week for 42 weeks. The salaries ranged from a low of $1.80 per hour--from $100 to $175 per week--to a high of more than $1,000 per month.

In unusual circumstances, as when a small percentage of students began as volunteer interns in public service careers during the first period of employment, it is apparent that later many were placed on the employer's payroll when competence was demonstrated. Agencies have been able to establish budgets for aides and trainees as the result of high quality performance on the job by cooperative education students. Reports from the last two years indicate many variations in salary.

"Volunteers--certainly the lowest end of the pay scale--are gaining valuable experience that often leads to paying jobs."

"$2.00 per hour is our minimum. Highest pay is for alternate semester jobs in building elevator maintenance and installation for $272 per week--$1,088 per month while in training with a major nationwide employer."

"Weighted average hourly earnings for the better co-op employment stations leading to Associate Degree responsibility levels is $3.43 per hour or $811 per month on full salary."

"Based upon a mean of $2.50 per hour students at this college earned $1,207,125 this year, while at the same time they gained new learning experience which is of greater value than the financial income."

Significantly, when students identify their greatest interest in cooperative education, it is most often reported in surveys as earning power. This is true in spite of educational planning which proposes that increased knowledge and advancement toward educational goals should be the most important objectives.

Success of the program in terms of developing earning power has proven to be far beyond any original expectations of the project design. The cooperative education program in each of the three colleges provides more students financial assistance than any other resource.

7. Non-traditional college students, in many cases economically and educationally disadvantaged, continue to show improved progress.

Students, who in traditional kinds of college programs have tended to be early dropouts because of educational deficiencies or financial limitations, are achieving success in cooperative education in about the same percentages as other students. Reports show that improvement factors of retention, academic studies, and earnings also apply to the non-traditional college student in cooperative education. This level of progress is better than early expectations.

8. Affirmative-Action opportunities for students as well as employers are an expanding area of emphasis through New Horizons.

A new forward thrust is being taken through emphasis on provision of pre-professional learning opportunities for non-traditional college students. Opportunities for learning experiences in the offices of physicians, attorneys, engineers, and top-level professional executives are being developed.

Affirmative-Action opportunities also are being developed at the technical and para-professional levels for students who aim toward upper division studies eventually. Employers seeking students qualifiable under Affirmative Action guidelines are giving preference to cooperative education college students. This is a significant new trend in the development of improved cooperative education programs.

9. Employers continue to be highly receptive to community college cooperative education after a period of effective demonstration and promotion.

Regardless of world-wide problems which have occurred during 1974-75 with regard to the energy crisis and a weak employment market, employers continue to provide strong support for cooperative education.

Employer positive response to the program is indicated by the fact that about 50% of "good prospect" employers, screened from response letters to development literature, actually become employers of cooperative education students. A total of 1,200 business, industry and community agencies have employed the 2,325 students enrolled in community college cooperative education during the 1974-75 school year.

Employers are becoming aware of the fact that community colleges are the largest local labor pool of young, talented employees with high potential for advancement to technical and management positions. The co-op plan is the answer to many of their recruiting and screening problems.

Students, as well as employers, benefit from the effectiveness of cooperative education to open wide new areas of employment traditionally not available to beginning workers. Recruitment, as well as options for continuing in school and on the job, are mutually beneficial.

College Report, 750 Employers:

"A large company reporting through personnel representatives stated that the concept of cooperative work experience education has been introduced into all of their employee's bargaining sessions and has been received with enthusiasm. Many employers see community college work experience credit as an incentive for full-time employees to continue upgrading and re-training activities to meet today's employment needs."

10. Cost-effectiveness of community college cooperative education is being demonstrated as highly productive for the funds invested.

Man-hours of co-op coordination including job development, counseling, evaluation and on-the-job consultation are 5.87 man-hours per student per semester.

Cost of cooperative education (other than on-campus classroom instruction), including 3 semester hours credit per student with associated teacher-coordinator activities, job development, counseling, on-the-job consultation, and evaluation is $60.83 per student per semester.

These calculations are based upon salaries of $18,250 for instructor-coordinators working 8 hours per day for 220 days per year, each providing full coordination services for 150 students per semester.

Since cooperative education may account for as much as 25% of the total unit credit of an Associate Degree program in community college, it is quite apparent that a substantial negative-excess-cost-factor can be applied to programs of this type. Through cooperative education the total cost of college per student is reduced.

11. Returning veterans find cooperative education particularly helpful.

There is a strong tendency for veterans from the western region of the United States to turn to community colleges for continuing education opportunities. They find the cooperative education approach particularly attractive. Coordinators report that from 25% to 50% of their programs are made up of returning veterans.

Special efforts have been instituted to assure that full veteran benefits apply to all credit earned through cooperative education. Arrangements with Veterans Administration officials have been made so that maximum benefits are received in each case.

12. Employer participation is developed using at least five approaches:

a. One-by-one meetings with supervisory personnel;
b. Large group meetings with many employers;
c. Large companies and small businesses approach through associations;
d. Bandwagon effect in job development as companies become aware of program potential;
e. Job development as a regular function of cooperative coordination activities.

"Each semester 7.5 semester hours of certificated time was allocated for the purpose of job development. In the fall, concentration was made in the area of student recruitment, technician positions, business/DP positions and public service. In the spring, development centered

on technician, aeronautics, and government positions. The goal has been to establish 'ideal' work stations directly related to every occupational area."

"Most of the major employers in cooperative education have established training programs into which they integrate the cooperative education concept."

13. Nearly 100% of students are able to hold their co-op jobs after placement.

Although many students must learn to cope with problems on the job there is less than 1% failure rate. Coordinators assist in job changes and in obtaining better jobs for qualified students. Reassignment to other jobs is sometimes used if unusual problems are encountered. Coordinators and on-the-job supervisors have proven to be highly effective in helping co-op students to succeed.

The trend in each college is to combine student placement office activities with cooperative placement. This is a positive organizational change which has occurred with varying degrees of success. In the long run the benefits are many. First, the student identifies one office as being concerned with off-campus jobs. Employers too are able to call one location at the college to discuss the employment of student workers. Integration of these two activities facilitates the process of helping students find either part-time or full-time jobs as well as getting them enrolled for cooperative education.

14. Cooperative education job development can be accomplished either by full-time developers or by assignment as part of the task of regular co-op coordinators.

At this stage of development it requires about three man-hours to develop one co-op job. There is evidence to indicate that a dual approach should be taken for this function. Much of job development belongs with the regular coordination assignment, particularly for work-station development within organizations already employing co-op students.

"One thing I have noted is that we always have more jobs than we can fill and at the same time more students than we can place. As in all personnel work, it is difficult to make the job and the student fit together. Expectations of students and employers can usually be met, but there are times when neither are completely happy. As the program grows there is a constant improvement in the quality of placements and experience opportunities."

15. Training, upgrading and re-training are important features of New Horizons for those with lower-level jobs who wish to improve their positions as well as those who are beginning work for the first time.

Placement on the first job and advancement to higher levels of competence are two patterns of co-op employment. The parallel

plan enrolling about 49% of the students, along with the extended day new career plan enrolling about 45%, are the two most used methods of co-op interaction with employers. Alternate semester arrangements now 6% are increasingly in demand, particularly with the larger employers, and the trend is growing.

Paid employment and college coordination are the two universal factors in cooperative education.

Enthusiasm develops as students get involved in on-the-job activities. Increasingly there are requests for information on transfer to upper division colleges and universities by those whose sights have been raised through the cooperative education process. Upper division institutions are responding by developing opportunities for co-op transfer students who have been "turned on" to further education.

16. Improved educational opportunities are documented in terms of student measurable learning objectives and new on-the-job training programs.

Student measurable learning objectives identified on-the-job at the beginning of each semester have resulted in greater progress toward new learning opportunities as perceived by both students and their employers.

Measurable learning objectives for cooperative work experience are classified in terms of (1) skill development, (2) increased knowledge and (3) improvements in inter-personal relationships, including attitudes and motivation. These categories are derived from corresponding basic taxonomies of learning, identified in professional literature on learning processes as (a) psycho-motor, (b) cognitive and (c) affective domains.

Industrial and business training programs for on-the-job advancement toward mid-management and senior technician careers open a second new area of cooperative education interchange between employers and community colleges. Examples of on-the-job formal training programs are found in service industries, wholesale and retail trade, transportation, manufacturing and civil service.

Before cooperative education was adopted as an on-going part of company training programs, relatively few students were able to take advantage of these in-house learning activities. Now, however, it is becoming standard procedure to involve co-op students in seminars and programmed learning which leads to advancement on the job.

Employers and students are seeing new ways in which the cooperative plan can be used to mutual advantage to develop skilled employees. Mid-management and senior technician jobs have been obtained through the mutual efforts of employers, coordinators, and students.

17. Individualized share-and-learn opportunities were provided for visiting coordinators from other colleges developing new programs.

As a part of the responsibilities assumed with the Title IV-D grant award, a substantial effort has been made to share developmental information with visiting coordinators from other colleges. During 1974-75 285 individuals--singly, in groups of twos and threes, in groups of tens, twelves, thirties, and more--were provided with direct assistance.

It is evident that among new coordinators flexible training opportunities are needed for these busy professionals who are under pressure to learn quickly and who operate under the burden of limited time schedules. Training is needed not only for coordinators but also teachers, administrators, and others who are pioneering this developmental effort in higher education.

Coordinators from California, Iowa, Maryland, Nevada, Hawaii, Oregon, Washington, North Carolina, Florida, North Dakota, New York, and Utah were provided with information and individual discussion of developmental problems.

Faculty members and students from California community colleges and state colleges/universities also participated in discussions of cooperative education from the standpoint of the New Horizons approach.

18. A look toward the future suggests the need for development of an improved informational exchange network, a Western Regional Consortium.

In the western thirteen-state region of the United States there is a need to improve the process of research, development, and sharing the results of proven methods, so that all students in community colleges, state colleges, and universities can receive the benefits of cooperative education.

It has been proposed in several ad hoc meetings that a Western Regional Consortium should be established to assume the rapid and efficient development of co-op in the west. As a beginning, it is suggested that individual projects granted to colleges in this part of the country be prepared and funded in such ways that there is an assurance of effort to share results of R&D activities.

Preliminary discussions among coordinators have indicated that the need is not so much for a "Center" of activities as it is for informal sharing and regular opportunity to get together in small groups for resolution of developmental problems.

Further, the need is for planned articulation between lower-division and upper-division institutions. Included in the shared responsibilities is the need to develop programs for the education of professional coordinators.

WHERE IS CO-OP GOING?

In community colleges of the United States Cooperative Education is developing at a rapid pace which is expected to grow for years to come. Emphasis on funding of new programs in many community colleges has been in the vocational area. Consequently, in these programs there tends to be a lack of program orientation to include liberal arts transfer students. However, since the intent of all cooperative plans is to merge the resources of employers and schools to prepare young people for careers and significant adult roles in society, it seems realistic to move ahead on the assumption that it is equally important for liberal arts students to experience the learning situations of work related to college study.

Community college emphasis on vocational cooperative education has no doubt caused some students, particularly educationally disadvantaged low-income students, to overlook the possibilities for full upper-division and graduate college experience through the cooperative plan. The purpose of New Horizons is to bring together in a comprehensive design the best of all programs.

The large number of returning veterans enrolled in community colleges, many of them supporting families and an estimated 25% having minority backgrounds, are another group who are realizing the practical education and career advancement opportunities that exist through cooperative education. More than 2,800 veterans are now enrolled in the three colleges of the New Horizons project. In addition to improved learning opportunities they gain increased value from their military benefits through cooperative education, making their training and educational dollars go farther toward their careers.

RECOMMENDATION I. Looking ahead, as the result of project activities in New Horizons, it is recommended that action be taken to develop cooperative education programs in a broad range of colleges. All higher education students should have equal access to such programs. First priority, it would appear, should be to develop substantially larger urban and suburban public institutions; the community colleges, state colleges, and universities where most of the nation's students are enrolled. The need is for widespread Co-op activity in locations where the majority of students can participate.

RECOMMENDATION II. For the next ten years the need will be not only to establish new programs, but also to develop comprehensiveness in present activities. There is a need to bring together these programs within colleges which might be functioning under titles such as cooperative education, work experience, field experience, internships, work-study, student job placement, and career guidance. Employers as well as students would be served better if one program operation could provide complete information on cooperative education, careers, employment, work experience, and placement opportunities.

PROGRESS INDICATORS As a means of providing information about various segments of innovation occurring within this project, as well as other activities within cooperative education programs, a sampling of information is provided throughout the remainder of the report in the form of Progress Indicators. These brief sections of the report provide the reader with a look at New Horizons activities which result in significant progress.

PROGRESS INDICATOR 1.

MEASURABLE LEARNING OBJECTIVES IN COOPERATIVE EDUCATION

Management by Objectives (MBO) is one of the more significant current trends in business and industry to improve the effectiveness of personnel and operations. The aim is to focus all of the energies of the institution on predetermined performance objectives which are to be accomplished.

In line with this trend, a cooperative education procedure has been developed to the preliminary testing stage based upon measurable student learning objectives for the work experience. Objectives are developed by students in conferences with their on-the-job supervisors and college coordinators. Performance levels to be attained, the time and manner of development, as well as overall procedures for educational growth within the field of employment, are agreed upon prior to or during the early part of each semester.

Preliminary evidence indicates that evaluation of student progress is enhanced greatly by the process of setting measurable learning/performance objectives. In nearly all cases in which the system has received preliminary testing the results have been favorably received by students, employers, and colleges.

Learning objectives tend to fall into three categories: skill development, knowledge increase, and attitude/motivation improvement. In each case the student is the primary person responsible for laying out learning objectives, with the assistance of the college coordinator and the employer. The process is not complex. It is accomplished best through low-key informal conversations emphasizing positive learning opportunities readily available on the job. The intent is to involve the employer in the educational growth process as well as focusing the student on potential improvements which can be gained from the work experience.

Two examples of Student Measurable Learning Objectives are provided on pages 16 and 17.

SAN MATEO COMMUNITY COLLEGE DISTRICT

COOPERATIVE EDUCATION WORK EXPERIENCE AGREEMENT

Skyline [xx] CSM [ ] Canada [ ]

James C. Haversmith
STUDENT

Pacific Telephone Company
EMPLOYER (Company Name)

Engineer Assistant

Fall 1974
SEMESTER YEAR

Each semester that a student is enrolled in Cooperative Education, it is necessary to identify new learning objectives. They should be specific, measurable, and within his/her ability to accomplish. The objectives must be formulated by the student, reviewed and approved by both the employer and coordinator at the beginning of the semester.

At semester's end, the employer and student will discuss the progress made in attaining the objectives and independently rate the progress (below). From this rating plus seminar discussions, individual conferences, term assignments and on-the-job evaluation, the instructor/coordinator will determine whether or not the student is to receive credit for the work experience.

	Objectives	Rating
A.	During the first three weeks I will work in the drafting department learning communications design and industrial drafting techniques.	A. 1
B.	By Nov. 15 I will complete a ten-page report on the local engineering division of Pacific Telephone, including staffing relationships and work assignments.	B. 1
C.	During November and December I will work part-time in the field with an installation team preparing plans for industrial installations under the supervision of Engineer G. Jones.	C. 1
D.	By January 15 I will have completed an in-depth development project of communications planning and installation for a building under construction, probably a service station at the corner of Fifth and Division St.	D. 1
E.	During Fall semester I will seek to improve my attitude toward communications engineering as evidenced by increased proficiency ratings, recorded comments of other employees, and comments of my three supervisors.	E. 1

Rated By: GJ
Title: Engr Div Sup.
Date: 6-10-74

Excellent Employee

Rating Scale: 1 – Accomplished Objective
2 – Made some progress towards objective
3 – Failed to make any significant progress

We agree with the validity of the learning objectives listed above. The employer and the college agree to provide the necessary supervision and counseling to insure that the student/employee receives appropriate educational benefit from this work experience.

It is understood that the employer will provide adequate protection for the student/employee through Workmen's Compensation and/or Liability insurance as required by law.

G. Jones
EMPLOYER'S REPRESENTATIVE

Engineer
TITLE

James Haversmith
STUDENT'S SIGNATURE

M. Jenner
COORDINATOR'S SIGNATURE

EMPLOYER'S FILE COPY

SAN MATEO COMMUNITY COLLEGE DISTRICT

COOPERATIVE EDUCATION WORK EXPERIENCE AGREEMENT

Skyline ☐ CSM ☒ Canada ☐

Susan B. Johnson
STUDENT

Sears Roebuck
EMPLOYER (Company Name)

Department Management Trainee

Spring
SEMESTER

1974
YEAR

Each semester that a student is enrolled in Cooperative Education, it is necessary to identify new learning objectiv They should be specific, measurable, and within his/her ability to accomplish. The objectives must be formulated by t student, reviewed and approved by both the employer and coordinator at the beginning of the semester.

At semester's end, the employer and student will discuss the progress made in attaining the objectives and independe ly rate the progress (below). From this rating plus seminar discussions, individual conferences, term assignments and on-t job evaluation, the instructor/coordinator will determine whether or not the student is to receive credit for the work perience.

Objectives	Rating
A. During February I will develop a sales layout plan to improve sales in the Children's Clothing Department.	A. 1
B. Emphasis for the month of March will be developing an understanding of the bookkeeping, accounting, and inventory procedures for childrens clothing in accord with Sears policies.	B. 2
C. Before April 1 I will have complete ten hours working with the buyers of children's clothing to gain a better understanding of childrens fashions including safety features and varying seasonal age requirements.	C. 1
D. During May I will complete the in-service course on sales management which is offered for management trainees through individualized program learning opportunities during and after working hours. I will complete units 1 and 2 by June 1.	D. 1
E. During spring semester I plan to improve my sales competence and efficiency by an overall level of 10%, as evaluated by Supervisor George Hanson.	E. 1

Rated By: GH

Title: Mgt Supervisor

Date: 6-5-74

Rating Scale: 1 – Accomplished Objective
2 – Made some progress towards objective
3 – Failed to make any significant progress

We agree with the validity of the learning objectives listed above. The employer and the college agree to provide t necessary supervision and counseling to insure that the student/employee receives appropriate educational benefit from t work experience.

It is understood that the employer will provide adequate protection for the student/employee through Workmer Compensation and/or Liability insurance as required by law.

George Hanson
EMPLOYER'S REPRESENTATIVE

Susan B. Johnson
STUDENT'S SIGNATURE

R Harovich
COORDINATOR'S SIGNATURE

Management Supervisor
TITLE

EMPLOYER'S FILE COPY

20

PROGRESS INDICATOR 2.

PLANNING FOR CAREERS THROUGH COOPERATIVE EDUCATION, NEW HORIZONS APPROACH

Sound development of cooperative education programs requires careful consideration of the labor market. Indeed it can be held that planning should begin with analysis of future employment opportunities, for two important reasons:

1. Students who are aware of projected employment opportunities will be better prepared to choose realistic career options; and
2. educational programs designed to meet anticipated employment market needs are more likely to achieve optimum effectiveness.

This research and planning report[1] seeks to provide such an analysis --to yield a charting of future job markets in the San Francisco Bay Region based upon opinions of labor experts and trends of the times.

THE PROJECTION PROCESS

Manpower projections prepared nationally are relied upon heavily in this report, since they are considered by most experts to be the best available job market information. Data from many sources, including national census results, estimates of business and industry, and analysis of trends by experts--all of the best sources pointing to future employment opportunities--are analyzed by labor experts to determine future manpower requirements.

Localized projections are accomplished by utilizing techniques of adaptation. This type of analysis, based upon percentages of the labor force in cross-sectional distributions, is refined in accord with local conditions. In the Bay Region, for example, a reduction in job estimates for heavy industry and an increase for transportation are necessitated by the specific features of this international crossroads area.

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[1] CAREER OPPORTUNITIES: 1974-85, A research and planning report for San Mateo County, Peninsula Area, and San Francisco Bay Region prepared by the San Mateo Community College District, 1974.

"AVERAGE ANNUAL OPENINGS PER YEAR" INDEX OF EMPLOYMENT OPPORTUNITY

In the process of planning it is essential to communicate resulting information in terms which are easily understood. Employment opportunity estimates of the type presented here can perhaps be most readily perceived when expressed as "Average Annual Openings Per Year" for selected careers.

As an index of opportunity, the Average Annual Openings data focus directly on what the student needs to know about the labor market. Educational programs as well can respond according to local need.

It should be noted that manpower projections take into account not only increasing and decreasing activities of specific job markets but also employee replacement. Replacement occurs as the result of old age retirement and obsolescent skills. Therefore, in planning career education programs, consideration should be given to the fact that people need re-training and upgrading as well as entrance-level skill development.

THE LOCATION BEING STUDIED

The San Francisco Bay Region (SFBR) including six counties (Alameda, Contra Costa, Marin, San Francisco, San Mateo and Santa Clara) with over 4,200,000 people, is the sixth largest metropolitan population center in the United States, exceeded only by New York, Los Angeles, Chicago, Philadelphia, and Detroit.

At the present time, one of every five persons in California lives in the San Francisco Bay Region. Also, for comparative purposes, it is interesting to note that one of every 50 persons in the United States lives in the San Francisco Bay Region, and that one of every 372 persons in the United States lives in San Mateo County. (See figures A and B, pages 21 and 22)

For these reported employment opportunity projections it is assumed that most Cooperative Education students in the San Mateo Community College District are preparing to live and work in this region or in other regions that have similar employment characteristics.

PROJECTIONS OF EMPLOYMENT OPPORTUNITY

In addition to Figures A and B, (pages 21 and 22) which show population relationships, data about the number of projected new job openings per year in San Mateo County and the Bay Region are presented. A summary provided on pages 23, 24, and 25, combines data from each labor market category. This comprehensive summary is divided into different areas of the labor market including high-priority and expanding careers.

References: Area Manpower Review, San Francisco-Oakland Standard Metropolitan Statistical Area, Annual Outlook and Planning Report, California Employment Development Department 1973; San Francisco-Oakland Manpower, 1974-75, Employment Development Dept., State of California, January, 1974; Occupational Outlook Handbook, 1972-73 Edition, U. S. Dept. of Labor, Gureau of Labor Statistics Bulletin 1700; Manpower Report of the President, A Report on Manpower Requirements, Resources, Utilization, and Training, transmitted to Congress, March 1973.

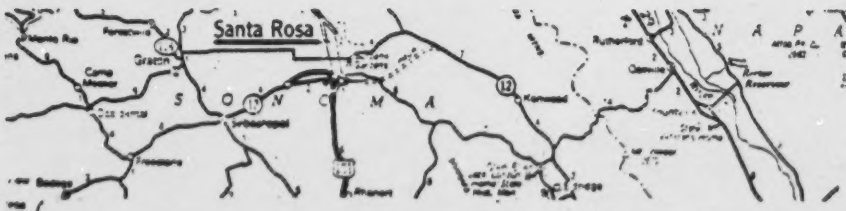

FIGURE A

POPULATION COMPARISONS

SAN FRANCISCO BAY REGION

The San Francisco Bay Region including six counties -- Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara -- with over 4,200,000 people is the 6th largest metropolitan population center in the United States, exceeded only by New York Los Angeles,Chicago, Philadelphia, and Detroit.

1 of every 5 persons in California

lives in the San Francisco Bay Region

1 of every 50 persons in the United States

lives in the San Francisco Bay Region.

FIGURE B

POPULATION COMPARISONS

Alaska	302,173
Delaware	548,104
Hawaii	769,913
Montana	694,409
Nevada	488,738
New Hampshire	737,681
North Dakota	617,761
South Dakota	666,257
Vermont	444,732
Wyoming	332,416

SAN MATEO COUNTY

564,500

1 of every 37 persons in California

lives in San Mateo County

CALIFORNIA

20,741,000

1 of every 372 persons in the United States

lives in San Mateo County

UNITED STATES

(January 1, 1973)

210,194,312

25

HIGH-PRIORITY, EXPANDING OPPORTUNITY CAREER AREAS

Combined With

Other Expanding Opportunity Career Areas

Division Totals Included*

I. San Mateo County

II. Peninsula Tri-County Area
San Francisco
San Mateo
Santa Clara

III. San Francisco Bay Region

Average Annual New Openings Per Year from 1974 to 1984

		I SM	II Tri-County	III SFBR
1.	Professional and Technical Occupations*	1,943	8,179	15,540
	Accountant	83	347	660
	Advertising/Market Research/Personnel/ Public Relations	60	254	482
	..ENGINEERING AND SCIENCE TECHNICIAN	261	1,098	2,088
	..MEDICAL LABORATORY TECHNICIAN	32	135	256
	Registered Nurse	163	684	1,300
	Radiological Technologist	18	77	146
	Life Scientist	38	160	304
	Physical Scientist: Chemist, Physicist	44	183	348
	..EMERGENCY MEDICAL TECHNICIAN	35	147	280
	..RESEARCH AND DEVELOPMENT ASSISTANT Business, Industry, Government	30	126	240
	Drafting Technician	38	161	306
	Writing Careers: News and Technical	8	32	62
	Commercial Artist	5	20	38
	Technical Illustrator	5	20	38
	Home/Consumer Economist/Interior Designer	23	82	180

Note: High priority career education needs are indicated by the use of ..CAPITAL LETTERS
Other expanding opportunity career areas as well as Division Totals are presented without special notation.

	Average Annual New Openings Per Year from 1974 to 1984		
	I SM	II Tri-County	III SFBR
Lawyer	36	152	290
Computer Programmer	57	242	460
Systems Analyst	68	284	540
2. ..MANAGEMENT AND SUPERVISION (Expanded Offerings) Business Office, Supermarket, Financial, Government Agency, Retail Sales, Wholesale Sales, Transportation, Hotel, Restaurant, Department Management, Owner-Management	950	4,000	7,600
3. Clerical/Secretarial/Business Careers*	2,280	9,600	18,240
..STENOGRAPHER/SECRETARY: MULTIPLE SPECIALTIES	593	2,494	4,740
..ACCOUNT CLERK/COMPUTER-BOOKKEEPING ASSISTANT	195	821	1,560
..RECEPTIONIST/CASHIER/TYPIST	230	968	1,840
Electronic Computer Operating Personnel (Note Computer Programmer above)	51	215	408
Office Machine Operator	63	263	500
4. Sales Occupations*	658	2,768	5,260
..MANUFACTURER'S SALESWORKER	80	337	640
..WHOLESALE SALESWORKER	63	265	504
..RETAIL DEPARTMENT SUPERVISOR	170	711	1,350
..SALES SUPERVISOR	85	356	675
5. Craftsmen*	990	4,168	7,920
Building Trades: Carpenters, Electricians Plumbers, Bricklayers, Cement Masons, Floor Installers, Roofers, Sheet Metal Workers, Steelworker, Roofers and others	325	1,368	2,600
Machinist Occupations	47	198	378

		Average Annual New Openings Per Year from 1974 to 1984		
		I SM	II Tri-County	III SFBR
	Aircraft Mechanics: Airframe and Powerplant	95	125	194
	Telephone Industry Craftsmen (Also see Engineering & Science Technician)	17	71	134
	..WELDING TECHNICIANS	58	242	460
	..AUTOMATED INDUSTRIAL MACHINE TECHNICIAN	20	88	165
	..AIR CONDITIONING, HEATING, REFRIGERATION TECH.	13	52	100
	..MAJOR APPLIANCE SERVICE TECHNICIAN	22	91	172
	..BUSINESS MACHINES SERVICE TECHNICIAN	22	90	170
	..INSTRUMENT CALIBRATION/REPAIR TECHNICIAN	19	79	151
	..FOREMAN/CONTRACTOR/CONSTRUCTION SUPERVISOR Construction Project Bidding; Contractor License Preparation	141	591	1,124
	..MANUFACTURING INSPECTOR: QUALITY CONTROL TECH.	48	202	384
6.	Operatives*	1,065	4,484	8,520
	Truckdrivers, local	93	389	740
	Truckdrivers, Over the Road	54	227	432
	Machine Tool Operators	26	111	210
	Environmental: Wastewater Treatment Plant Operators	6	26	50
7.	Service Occupations*	1,880	7,915	15,040
	Cooks and Chefs	120	505	960
	Cosmetologists	95	400	760
	Licensed Practical Nurses	120	505	960
	Hospital Attendants	250	1,053	2,000
	Police Officers	45	187	356
	Waiters and Waitresses	168	705	1,340
	..BUILDING MAINTENANCE CUSTODIAN/TECHNICIAN	125	518	985
	..HOUSEHOLD CLEANING MAINTENANCE SERVICE TECH.	60	252	480

PROGRESS INDICATOR 3

A COMPREHENSIVE MODEL FOR COOPERATIVE EDUCATION PROGRAMS

It has been suggested by many people in cooperative education that the best features of all known programs should be brought together to design a complete and comprehensive "model" program. The idea would be to pull together the best concepts and working components into a single conceptual model. Most programs would not have all of the components. All programs, however, would have many of the parts of the all-inclusive design. The proposed comprehensive model would include at least these components.

1. College Administrative Support

Strong cooperative education program support by top-level administrators is the key to success. It has been said by many people in cooperative education that the most essential feature for successful operation is endorsement of the program by the President and Administrative Deans. Other components fall into place rather readily if budget and staffing support are provided.

2. Business, Industry, and Public Agency Support

It is essential that high-quality job development efforts and public relations information be directed toward business, industry, and public agencies. The heart of cooperative education is in employed work experience.

3. Program Administrative Leadership

The strength of a cooperative education program is reflected in its leadership. The Program Director sets the pace for all activities. Effective growth can occur only if dynamic leadership is provided.

4. Coordinators

The most important link between the college and the community is through coordinators. Services to students in cooperative education will be only as good as capable coordinators can provide. It is essential, therefore, that each program provide for the in-service growth and professional development of highly competent faculty coordinators.

5. Placement Services Coordination

The trend in many colleges is to combine student placement office activities with cooperative education placement. This appears to be a positive organizational move. First, the student identifies one office as being concerned with jobs. Employers, too, are able to call one location at the college to discuss the employment of student workers. Cooperative education coordinators who find new employment opportunities as they are making their calls have access to a list of students looking for specific types of work. Ready referral is possible. Integration of these two activities expidites the process of helping students find either part-time or full-time jobs as well as facilitating enrollment in cooperative education.

6. Relationship to Guidance and Counseling

Counseling is a key element in the cooperative education program. Students need counseling to help them make sound career plans, and to help them generally in their educational, vocational, and personal development. Included with counseling should be access to psychological tests which can be useful in the selection and placement process as well as in career planning. Counseling services also can aid students to obtain career guidance materials from the Career Center to meet individual needs for information.

7. Relationship to Academic and Career-Oriented Instructional Programs

Cooperative education should include opportunities for positive interaction with the Career Guidance Center. Career education is receiving major attention throughout the country and is being critically examined for its potential to bring about more effective personal development while strengthening general as well as specialized aspects of each student's education. The materials available in Career Guidance Centers should be part of the coordination service to cooperative education students, whether they are in the preprofessional stage (choosing a career), re-entry phase, or in an upgrading facet of the program.

8. Public Relations Information About the Co-op Program for Students and Faculty as well as Business and Industry

It is important to the success of cooperative education to maintain excellent public relations. Not only is there a need for brochures, newspaper articles, and other printed materials, but also it is essential to develop and maintain friendly personal contacts with students, faculty, and the community. Good public relations does not imply the use of gimmicks. Rather, a straightforward sincere approach to telling about the valuable contributions of co-op students while employed should be the approach.

Several colleges have indicated the value and usefulness of employing on a part-time basis business executives and other public relation specialists in developing the co-op program. Retired professionals are excellent resources.

9. Information About the Labor Market

In the office area of cooperative education, or in the career center if there is a close proximity, there should be extensive amounts of information and bulletins about local business, industries, and government agencies. Extra copies of telephone directories, Chamber of Commerce bulletins, business guides, industrial directories, road maps of the area, and other information useful in discovering job sources should be available. Co-op students need to be provided with the best available information about local employers.

It is extremely valuable for cooperative education coordinators to assist in developing area-wide manpower projections for 5 to 10 years in the future. These local projections can be developed through techniques of translating Department of Labor, Bureau of Labor Statistics, projections in relationship to local employment opportunities currently available.

10. Effective Record-Keeping System

For purposes of improving student services it is essential that an effective record-keeping system be maintained. Much can be learned from efficient record-keeping from other institutions. For example, most hospitals and many businesses use a single large card printed on two sides, or a folded card printed on four sides, to maintain all of the essential information about an individual employee. Job skills, history of employment, academic record, and evaluations can be stored much more efficiently than in traditional ways. The analysis and implementation of an effective record-keeping systems will save a great amount of professional time and will assure better service for co-op students.

11. Coordinating Class Learning Activities for Cooperative Education Students

An important area of development for most co-op programs is to improve the process of providing job-related knowledge for beginning students. Specifically, in co-op, there is a significant need for greater understanding by students of at least these topics:

A. What the co-op process is about--the purpose and procedures;

B. How to analyze the labor market and choose a career;

C. How to prepare a satisfactory employment resume and prepare for interviews;

D. Techniques of human-relations on-the-job;

E. How to use co-op throughout one's lifetime as a means of upgrading and retraining for improved employment opportunities.

12. Special Services for Physically Handicapped and Educationally Disadvantaged Students

As a means of providing comprehensive services to all students, it is important to consider those who have special needs. Most employers, when encouraged to do so, are willing to hire workers with physical handicaps if they can demonstrate the capability of being fully productive on-the-job and competing with other workers. Co-op programs, also have a responsibility to provide special educational services to assure that students with educational deficiencies are provided with additional assistance so that they can be successful in regular programs. Multitudes of students who have been disenchanted with traditional school approaches have successfully completed college through co-op programs.

13. Interrelationship With Career Guidance and Counseling

Close working ties with counselors are important to the success and effectiveness of co-op programs. Many of the most effective coordinators working with students also have a counseling background. Although cooperative education is essentially an instructional program, it must have a close alliance with the career counseling and guidance services of the college.

14. Interrelationship With Independent Studies in Learning Centers

More and more, coordinated instruction techniques are being used to transmit information. Programmed learning and individualized modular instruction is occurring through the use of special text materials and audio-visual presentations available through Learning Centers. Career guidance information is often presented in this manner. It is important, therefore, that co-op programs be closely associated with these Career or Learning Centers.

15. Advisory Committees On Cooperative Education

Most program directors have found that a district-wide advisory committee is very useful in the promotion and development of cooperative education. Representation on the committee should include the management level of business, industry, public agencies, labor unions, Employment Development Department, as well as faculty, and student representatives. The Advisory Committee provides a direct linkage with employers that has proven to be of great value. When committee meetings are held, it is important to include a number of coordinators and students to interact with committee members. Through this interactive process many potential problems can be resolved and the program will be improved.

16. Articulation With Secondary Schools

Recognizing that high school work experience programs can be the source of large numbers of future community college co-op students, it is wise to develop a close working relationship. It has been found advantageous by some program directors to hire high school coordinators on a part-time basis to supervise college students. Also, information about college co-op programs should be readily available for use in high school guidance and counseling programs, business departments, and school libraries.

17. Articulation With Upper Division College Programs

If community college co-op students transfer to upper division studies, there are problems that arise occasionally in the transfer of credit and acceptance of co-op courses toward advanced degrees. Recent developments show a trend toward improved articulation to resolve these problems. A Committee On Articulation between community colleges and state colleges meets several times each year. In fact, upper division institutions at this time are quite willing to accept Cooperative Education units as part of general education requirements and as elective credit.

18. Multiple Options for Students

To meet the needs of all students, a comprehensive program should include many scheduling options. Alternate term, parallel half-day schedule, and extended-day arrangements for evening college students who work during the day should be in operation. Many of the larger employers, including federal, state, and civil service agencies strongly endorse the alternate plan since it meets the needs of employers for full-time coverage of work stations. Many colleges are providing expanded opportunities for co-op internship in preprofessional employment situations.

19. Registration Procedure With Provision for Early and Late Enrollment

Since the realities of the labor market are such that jobs become available at many times throughout the year, it is important that co-op programs be effective in responding to this factor in employment. Although the student may not be eligible for immediate credit, there is a reasonable expectation that co-op employment procedures and coordination be allowed throughout the full term. Providions should be made to meet the needs of students and employers in accordance with the way the job market traditionally operates.

20. Interdisciplinary Co-op Opportunities in All Academic, Technical, and Business Divisions

If cooperative education is to reach its full potential, it must be made available for all students in the college. It is reasonable to expect that students enrolled in any division or department should have available the resources of the co-op program. This trend is growing stronger, particularly in community colleges.

21. College Work-Study

Most comprehensive co-op programs make provisions to include off-campus college work-study stations within the cooperative education offerings. Many creative arrangements for students have been established in hospitals, city and county government, public health agencies, and other nonprofit employers who pay 20% of the student's salary, with 80% through federal work-study funding. This specific combination of cooperative education with work-study funding is strongly endorsed by the Federal Work-Study Program. Obviously, it benefits the student greatly and provides educational opportunities that would not be possible without co-op.

22. Effective Evaluation of Students

Techniques should be developed to clarify for students, coordinators, and employers, what the student is expected to learn during the school term. Whether the process used is one of the measurable learning objectives or some other procedure, it is necessary from the standpoint of sound educational practice to provide for effective evaluation of student progress on-the-job.

23. Provision For Program Evaluation

To be successful, the co-op program must prove its effectiveness in relationship to other educational programs of the college. A systematic approach to measuring effectiveness in providing high quality educational progress for students must be demonstrated if budget requests and staff allocations are to be provided. Program effectiveness and budget allocations go hand-in-hand in the business of college operation.

PROGRESS INDICATOR NO. 4

"THE NEXT TEN YEARS IN COOPERATIVE EDUCATION"
Western Regional Cooperative Education Institute
Sir Francis Drake Hotel, San Francisco
October 24-25, 1974

ASSIGNMENTS OF PROGRAM RESPONSIBLITIES
Purpose of the Conference

The two day "share and tell" development and training institute was designed to focus on cooperative education issues and needs in the thirteen western states relating to community, state, and private colleges and universities.

The theme, "The Next Ten Years in Cooperative Education" was based upon two assumptions:

Assumption I: Cooperative Education, Work Experience, Internships, Experiential Education--by whatever name--rapid growth is occurring in colleges and universities, and will no doubt expand dramatically in the near future.

1. What is needed to assure program quality?
2. Is there more than one one way to do cooperative education?
3. Should co-op be comprehensive, including technical, liberal arts, business, undeclared, and all other majors?
4. What techniques are effective in developing co-op programs among students, faculty, and administration?

Assumption II: Co-op program development assistance is needed throughout all of higher education, and particularly in the western region.

1. How can coordinators be trained and upgraded most effectively?
2. Should job development be a joint effort of colleges? of employers? of agencies? systematized? private agencies?
3. Is on-the-job supervision a partnership? Who? What? When?
4. What are the roles?
   a) State Associations, Cooperative Education Associations, Chancellor's offices;
   b) Labor unions, personnel associations, faculty associations,
5. Techniques: Audio-visual development, employer information, record-keeping, exchange of information, student awareness.

"THE NEXT TEN YEARS IN COOPERATIVE EDUCATION"
Western Regional Cooperative Education Institute
Sir Francis Drake Hotel, San Francisco
October 24-25, 1974

Jointly sponsored by: San Mateo Community College District and Northeastern University Center of Cooperative Education, in conjunction with Coast Community College District, Pasadena City College, San Francisco and Fullerton State Universities, and the University of California at Los Angeles and Davis.

WEDNESDAY, October 23 4:00 PM - 6:00 PM	Preliminary Registration
THURSDAY, October 24 8:00 AM - 12:00 Noon	Registration
9:30 - 10:30	Welcome and Opening Remarks Glenn P. Smith, Chancellor/Superintendent San Mateo Community College District, and others Film: A Two Way Street
10:30 - 11:45	A Look to the Future. Historical Development and Changing Characteristics of Cooperative Education in Public and Private Universities, Colleges, and Community Colleges, 1964 to 1984 Presenters: Joseph Barbeau, Bernard Hyink and others
11:45 - 1:00 PM	Lunch (No Host, Downtown San Francisco)
1:00 - 2:00	Funding of Cooperative Education Programs from Federal, State, and Local Sources Presenters: Sinclair Jeter, Chief, Cooperative Education, DFT, U.S. Office of Education, and others
2:00 - 3:00	Management of Comprehensive Cooperative Education Programs Presenters: Vaughn Redding, James Garmon, Frederick Gilman, Sidney Davidson
3:00 - 3:15	Coke and Coffee Break
3:15 - 4:00	Non-traditional College Student-Affirmative Action Presenters: Ralph Gutierrez, David West
4:00 - 4:45	Advantages of the Alternate Plan Presenter: Paul Dubé and others Emphasizing Floor Discussion and Questions
6:00 - 7:00	Social Hour - No Host, Starlight Room
7:00 - 8:30	Dinner - (Dining Room to be announced) First Evaluation Feedback - L. O. Brockmann Keynote Speaker: Roy L. Wooldridge, Executive Director National Commission for Cooperative Education

"THE NEXT TEN YEARS IN COOPERATIVE EDUCATION"
Western Regional Cooperative Education Institute
Sir Francis Drake Hotel, San Francisco
October 24-25, 1974

FRIDAY, October 25

9:00 AM - 10:00 AM	Employer Relations, Job Development, Job Supervision, Manpower Needs Presenters: Paul Dubé, Carolyn Schuetz, Maggie McBride, Vaughn Redding Film: Into the Mainstream
10:00 - 10:15	Coke and Coffee Break
10:15 - 11:45	Western Region: Where are we in Co-op? Presenters: Bernard Hyink, Vern Scott Robert Bennett
11:45 - 1:00 PM	Lunch (No Host, Downtown San Francisco)
1:00 PM - 2:00	Career Orientation and Development, Counseling, and Guidance Presenters: Joseph Barbeau, Ralph Gutierrez, William Thomas, Daniel Peck
2:00 - 2:45	Characteristics of Quality Programs, Measurable Learning Objectives; Veterans and Adults Presenters: Paul Dubé, Karl Standberg, Sanford Gum
2:45 - 3:00	Coke and Coffee Break
3:00 - 4:45	Institute Summary. Evaluation Feedback What has been accomplished? What is needed? Where do we go from here? Presenters: Louis Brockmann, Vaughn Redding, Bernard Hyink

"THE NEXT TEN YEARS IN COOPERATIVE EDUCATION"

WESTERN REGIONAL COOPERATIVE EDUCATION INSTITUTE
October 24-25, 1975 in San Francisco

Jointly Sponsored By

San Mateo Community College District and Northeastern University, Center for Cooperative Education in conjunction with Pasadena City College, San Francisco and Fullerton State Universities, and the University of California at Los Angeles and Davis.

Background

Cooperative education has become a significant component of higher education in the United States. No where is the growth of this movement more pronounced than in the Western thirteen-state region where the cooperative plan is recognized as a most appropriate form of education for students and an excellent source of talent for employers.

The Western Regional Cooperative Education Institute has been developed to meet the need expressed by the west coast delegates to the Cooperative Education Association Conference of 1974, in Lincoln, Nebraska, to look at the future of cooperative education in light of this phenomenal growth.

Participants

Cooperative education coordinators and directors representing institutions located in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming are invited. Also welcome are other educational administrators from these states who wish to learn more about this new trend in higher education.

Focus

The institute's panels and small group discussions will focus on the theme of "The Next Ten Years in Cooperative Education" with a three-fold objective:

1) To provide the tools that will assist the new coordinator or director fulfill his present responsibilities with greater confidence;
2) To serve as a forum for those issues that will shape the development of cooperative education throughout the next ten years; and
3) To establish a communications network between those institutions and people involved in the growth of West Coast cooperative education.

Topics To Be Covered

1) The Changing Character of Cooperative Education in the Public and Private Universities, Colleges and Community Colleges - 1964 to 1984"
2) Management of Comprehensive Cooperative Programs

3) Creating Measurable Learning Objectives
4) What Constitutes a Quality Cooperative Program From the Point of View of Staff, Instruction, and Co-op Assignments?
5) Career Orientation and Development
6) Special Advantages of the Alternating Plan
7) Cultivating Employer Contacts and Relations: Benefits for the Co-op Employer; How to Promote Co-op Education with Employers; Employers' Responsibilities to and Supervision of Co-op Students; Role of the Institution in the Supervision of Co-op Students"
8) Cooperative Education and Affirmative Action
9) Record Keeping, Forms, and Printed Materials' Design
10) Funding the Cooperative Program from Federal, State, and Local Sources
11) Present and Projected Manpower Needs and Trends; Cooperative Education As A Means For Educating Students To Fill Tomorrow's Jobs

When and Where

All formal Institute activities will take place at the Sir Francis Drake Hotel, San Francisco, California, and are scheduled to run from registration at 8:30 a.m. on Thursday, October 24, until p.m. on Friday, October 25, 1974.

Workshop participants are encouraged to select hotel accomodations at the conference hotel. Arrangements should be made directly with the hotel, and a reservation card is enclosed for your convenience. Our group has been guaranteed the reduced conference rates of $25 per night for a single room and $28 for double accommodations. Out-of-town visitors will especially want to take advantage of sight-seeing tours which depart regularly from the hotel.

Discussion Leaders

Principle members of the instructional staff will be Joseph Barbeau, Northeastern University; Robert Bennett, San Mateo Community College District; Paul Dubé, Northeastern University; James Garmon, Orange Coast College; Ralph Gutierrez, Pasadena City College; Bernard Hyink, Fullerton State College; Sinclair Jeter, United States of Education; Vaughn Redding, Coast Community College; Karl Strandberg, Gold West College; Dorothy Whitmore, Alaska Methodist University; and Roy Wooldridge, National Commission for Cooperative Education. Other speakers and panelists will be drawn from prominent figures in the Western cooperative education movement.

Application Procedure

All applicants are requested to submit a $15 registration fee with their application form. Please make checks payable to the Western Regional Cooperative Education Institute. This registration fee will cover Thursday night's dinner and all workshop materials. Each participant will be responsible for his own transportation and living expenses.

Participants will be accepted on a first-come, first served basis upon receipt of their application form and registration check. Please complete the form at the bottom of this page and send it along with a check for your registration fee to:

Western Regional Cooperative Education Institute
2015 Pioneer Court
San Mateo, California 94403
Telephone: (415) 574-6562

This conference, partially funded by the U. S. Office of Education, will not discriminate on the basis of sex, race, creed, color, or national origin in selecting and accepting participants.

SECOND REGIONAL CONFERENCE

The second Western Regional Institute on Cooperative Education is planned for October 23 and 24, 1975 at the Sheraton Inn located in San Mateo County near San Francisco International Airport.

The general theme based upon looking ahead for the next decade will be considered further. It is intended that conferees will be in attendance from all segments of higher education interested in cooperative education in the western region of the United States.

PROGRESS INDICATOR NO. 5

SUCCESS FOR NON-TRADITIONAL COLLEGE-BOUND STUDENTS (NTCS)
THROUGH COORDINATED INSTRUCTION, COOPERATIVE EDUCATION, AND AFFIRMATIVE ACTION

For a number of persons not associated with the community college and its role in providing education, career goals and objectives are mere frustrations. For many who are acquainted with higher education, the traditional methods of providing education and/or training exclude them by placing too much emphasis on specified times, places, and dates. A sizable number of these persons are minority, female, disadvantaged, handicapped, and aged. To reach and meet the needs of these persons, an innovative approach to our current instructional delivery system for occupational education in the community college is indicated.

There is a need for individualized learning approaches that transcend the notion of a one-to-one teacher-student relationship and focuses upon individual learning needs. In doing so, a new kind of student and greater audiences will be reached. Notwithstanding, the unique learning needs of the disadvantaged, handicapped, and the aged, there is a sizable audience to be served among the technologically unemployed, persons undergoing career changes, the underemployed, etc. All of these persons will benefit from coordinated instruction, based on a thorough diagnosis of learning needs and prescribed to meet these needs.

Consider the underemployed individual who has a great ambition to improve upon his current job situation, but is locked out of any realistic opportunity to do so because of time constraints placed upon him by his working hours and the traditional approach to occupational education. His individualized learning needs may call for evening and weekend instructions, provided over a period of six to eight weeks. Such "packaged" learning needs can be met through individualized coordinated instruction. According to Mary F. Davies, writing for Manpower Magazine, January 1975, "...programmed instruction provides all the necessary subject matter and directions for independent study. It can be divided into units of study of appropriate length to meet specific objectives." The efficacy of this approach has

Report prepared by David West

been demonstrated by Dr. Genevieve Cory in her use of televised instruction, conducting "kaffee klatches", among other things, with community groups in a minority community utilizing coordinated instruction.

Because sensitivity to individual levels of learning and academic achievement of the student is important, "such differences can be uncovered through refined diagnostic tests, and dealt with through a 'prescribed' unit of study tailored to specific weaknesses...continuous and immediate feedback on progress is provided... (and) the self-pacing...of programmed instruction frees the student from rigid time constraints." Such flexibility in the community college occupational education program, provided by coordinated instruction, will go a long way in meeting the learning needs of persons from disadvantaged backgrounds; handicapped persons restricted by their physical condition; and other NTCSs constrained by their unique situations.

Experience has shown that lack of motivation is too often linked to lack of opportunity. Moreover, motivation is enhanced by repeated successful learning experiences. Both of these opportunities can be a reality for the NTCSs through coordinated instruction in the community college occupational education delivery system.

Environmental Influence

Consider a Black student who found himself in college a few years ago who had come from generations of non-college family members. His financial resources were limited as the result of two generations of aid to families with dependent children (AFDC). He arrived at college knowing that in order to break the vicious cycle of past generations he needed a college education. Beyond this, however, he had no understanding of what college was all about. What he did know was that he wanted to be a doctor; this was probably due to the influence of a Black doctor who had attended his family through AFDC.

To realize his life ambition he first required extensive in-depth counseling and tutorial work. He experienced great difficulty in relating to college studies and understanding how general studies, for instance, were related to his desire to become a doctor. "Why can't I just get into my major?" It became obvious early in the first year that lack of background in academically oriented surroundings had much to do with this student's limited perception of college education.

Because of his financial situation, college placement coordination became involved in the task of job finding, and by accident rather than intent he began a part-time evening job as a hospital orderly. The work proved to be more than merely a way to earn money. It became the significant connection he needed to understand the realities of a doctor's responsibilities and the level of learning required. Doctors and nurses were helpful in encouraging him to pursue his interests in medicine.

Later, upon receiving a bachelor's degree, with good but not outstanding grades, he applied, but was rejected by several medical schools. Dejected, and on the verge of giving up, he returned to his college counselors with the problem. Through the assistance of a dedicated physician, they were able to secure his admission to a School of Podiatry. He was graduated in 1974.

A number of things happened to this medical student in the process of trying to overcome obstacles imposed upon him by an educationally disadvantaged background. Through much individual effort, and a great deal of direction, he was able to realize his life's ambition. The circumstances surrounding his success were based on chance as much as anything else, since little effort toward systematic matching of the student to a job related to his interest had been undertaken. But what if it had been planned?

A Chicano student reading statistics which indicate that there is only one Chicano lawyer for every 15,900 Mexican-American Californians, as opposed to one White lawyer to every 450 White Californians, may be inspired to seek law as a profession. Yet he/she being fron a Non-traditional College-Bound Student (NTCS) background, may have little if any understanding of the process by which one becomes an attorney. Through cooperative education this student can become involved in a systematic effort to help realize his ambitions. Contacts made with local Chicano lawyers and law firms will be useful in developing an appropriate cooperative education placement. Contacts made with four-year institutions will go a long way in establishing the bridge needed to help the student realize his goal of becoming a lawyer.

Cooperative Education will go a long way toward providing impetus and opportunity for Native American students (Indians) seeking skills that will be useful

to his/her community. Students interested in the helping professions might be provided opportunities to work in local health centers located in areas populated by Native Americans. Here, the student is stimulated by a variety of professions in medicine, nursing, dentistry, social work, and public health. With a fair number of Native Americans and other professionals to relate to, the student is apt to be motivated to choose this career area.

Much has been made of the fact that women as a group have been neglected in higher education and employment. Most would agree that this has been, and still is, the case in too many instances. Compare this situation with women who are both minority as well as from an NTC family background, and the problem is immediately magnified. Cooperative Education can be designed to reach and motivate women. If, for example, they desire to enter the field of electrical engineering, this experience can be provided. Efforts would be made to convince employers of the mutual benefits that can be derived from hiring females in their engineering firm. Moreover, potential employers would be helping to develop potential candidates which would satisfy affirmative action goals.

Cooperative Education-Affirmative Action

A plan which combines Affirmative Action principles and Cooperative Education is a useful approach to establishing a viable model to reach and serve the needs of the non-traditional college-bound student (NTCS). The payoff of such a model can be invaluable to employers as well, since most of them are implementing or are in the process of establishing affirmative action plans to achieve equal employment opportunity. Students and employers currently involved in cooperative education have high praise for its effectiveness in meeting their needs. Hence, aggressive work with the NTCS and potential employers should make co-op/affirmative action a useful first step in helping these students enter the mainstream of society.

Planned activity centered around the creation of cooperative work experiences which will enable NTCS students to make intelligent choices about future careers is a major thrust of this approach. This means placement of students in contact with top professionals in medicine, law, science, engineering, and business. Emphasis must be placed on articulation with four-year institutions of higher education, establishing a bridge between the two-year and four-year institutions.

Although the motivation toward, and understanding of, a professional career will have been furthered for the student, the agency or employer will also realize a major benefit as well. Educational institutions and employers express concern about the inability to attract and keep NTCSs, particularly Native Americans. Hence, a consistent co-op/affirmative action program of intervention and followup is invaluable to increasing the presence of NTCSs in education and employment.

While the success of Cooperative Education-Affirmative Action will be demonstrated in post-secondary education, continued success in the future will depend on the ability to educate the NTCS student while in high school to the opportunities offered by the program. By establishing a working relationship with local high schools to provide information and counseling about the program, an important like will be effected.

The efficacy of this project is without question related to fulfilling NTCS needs and in the process mounting a substantial attack upon social barriers to equality. These include barriers to both equal access to higher education and equal opportunity in employment.

Practical Approach

City governments, particularly fire and police departments, have been under siege to hire more minorities and women and recently the handicapped. One of the reasons given for under-representation of these groups is their failure to either take or pass civil service examinations. This has caused much activity centered around affirmative action, i.e., a review of tests, selection devices, and recruitment procedures--some employers have resorted to the unpopular device of setting quotas.

NTC students pursuing academic work related to areas of public service can be placed through cooperative work experience in related jobs where they get a "feel" of the job, and the employer can get a "look" at their work. On-the-job education will be complimented by classroom assignments. Students, thereby, will fulfill a need to engage in practical experience, while at the same time employers will receive needed capable manpower and realize affirmative action goals.

Co-op/Affirmative Action is geared to meet the needs of returning veterans, many meeting the requirements for job placement as qualifiables. Some veterans

are winding up in community colleges as a direct result of their inability to find jobs. A substantial number of these are NTCS. Some have developed skills through military experiences which will help to focus their career interests. Through Cooperative Education their skills and interests can be merged into a successful career. To many of these veterans, particularly the NTCS, Co-op placement will be their first real job other than military service.

Co-op/Affirmative Action can be of particular value to the employer who is required to develop on-the-job training programs for ethnic minorities and women in order to meet Affirmative Action goals and timetables to eliminate underutilization in employment of these groups. Services of the colleges will come about naturally as a regular function of cooperative work experience. The immediate benefit to the employer is a substantial reduction in expenditures for training activity. Furthermore, they will have a natural procession of students to meet manpower needs and to aid in the fulfillment of Affirmative Action goals.

In addition to benefiting the student and the employer, the four-year institutions will also realize a benefit. This plan will provide them with a direct Affirmative Action benefit as equal-access is an Affirmative Action concern in higher education.

In summary, the preceding accounts of Cooperative Education-Affirmative Action offer only a brief glimpse of the many opportunities possible. In addition to providing insight into many new career areas, NTC students will truly be given a chance at upward mobility. The Cooperative Work Experience Program already has demonstrated its ability to hold onto educationally disadvantaged students. These students have achieved success at the rate of other students--retention, academic stability, and earnings. Given this foundation for successful achievement, Co-op/Affirmative Action now can further this process by extending the NTCS's successful experiences into top professional opportunities.

PROGRESS INDICATOR 6

CAÑADA COLLEGE
COOPERATIVE EDUCATION FOLLOW UP
Spring/Fall, 1974
N = 162 Student Responses

The following are the results of a survey taken during May, 1974 of students who were enrolled in Cooperative Education, day and evening during Spring 1973 and/or Fall 1973.

Male - 46%
Female - 54%

Day Student - 67%
Evening Student - 33%

Veteran - 34%

18-21 years old - 42%
22-25 " " 14%
26-35 " " 28%
36 years & older 17%

1. Do you think that Cooperative Education has been helpful to you in your education growth? Yes 80%, No 20%

2. Has Cooperative Education provided you an opportunity to apply classroom theory to the job situations? Yes 80%, No 20%

3. Do you feel the Co-op program is career oriented enough? Yes 67%, No 28%

4. Do you feel Co-op Education has increased your job opportunities in the future? Yes 54%, No 39%

5. The coordinator was helpful to you in developing your learning objectives? Yes 75%, No 22%

6. The Co-op course requirements were made clear to you at the beginning of the semester? Yes 89%, No 11%

7. Has the use of objectives been helpful to you? Yes 81%, No 18%

8. Would you recommend this program to your friends? Yes 90%, No 9%

9. Did your coordinator visit your place of work at least twice during the semester? Yes 58%, No 35%

10. Do you think there should be more seminar meetings? Yes 28%, No 68%

11. Did you have any particular problems with your employer or coordinator? (See comments) Yes 13%, No 84%

12. How did you hear about Cooperative Education?

Teacher Assistant Program

Requirement for Food Technology

Co-op Coordinators - 17

Other Students - 6

Evening Schedule Brochure - 3

Counselor - 20

Friend - 40

Other classes - 9

Written material - 11

School bulletin - 3

Requirement

Catalog - 6

Guest Speaker at Children's Health Center

Boss

Registration

Orientation

A teacher - 3

Student Handbook

Other Evening Class - 3

Fellow workers - 3

High School Coordinator

Schedule - 6

At work - 5

School Bulletin - 3

Administration of Justice Program

13. Student Comments about educational, personal, and occupational benefits received from the Cooperative Education Program at Cañada College:

Some inputs from cooperative education had direct relationship to on-the-job experience.

It seems very important to put all the theory you learn in school into action to see if you really can put it all together on the job. To see in actual day to day occurrences if theory can be used and be useful and hold up is important. I felt that I got more out of this "apprenticeship" than spending that time with books and teachers in the classroom.

Learning that work habits can be looked at and improved, having to improve because the goals were known to my supervisors was of value to me.

Learned more about types of systems used by different offices; met interesting people.

Learned much about organizing myself, setting present and future goals for myself.

I was able to put theory into practical use.

I believe my work through Cooperative Education has brought recognition to me in my job.

13. Student Comments (Continued)

Earning units through practical usage seems to be an excellent idea. I feel that the coordinator should be present with the employer and the employee to make sure that all areas of agreements and expectations are made clear.

Employment on-the-job experience is of great value to students.

Co-op helped give me confidence in my teaching.

Learning how to seek new objectives is what I consider to be important.

This particular co-op experience has helped me to formulate an understanding of the type of work that I will be doing, rather than go right into the job with little experience for obtaining a job.

I got units for the time I was spending and a general guideline to help me set goals and achieve success with respect to objectives I set.

Co-op made it more beneficial for advancement in my job.

It helped me in analyzing job problems.

It gave me a chance to work as a naturalist, which is what I want to do as a profession.

Encouragement and defining of goals was good for me.

Four units of credit.

Increased interest. I get along better with my boss now.

Learned about big businesses.

I have a better rapport with my boss, and by his knowing that I am trying to improve, I believe I have a better chance for promotion.

Have learned how to use my time better and how to control my time.
_____is very interested in helping each student set realistic objectives and in helping them overcome employer problems, if evident.

Greatly expanded knowledge in field of endeavor, a knowledge that can be used on and off the job. Occupationally my job is somewhat easier; should make me look more desirable to future employers.

Provided the opportunity of researching and completing projects beneficial both to my employer and myself.

Learned to work with children more effectively.

Improved personal motivational abilities.

Made my employer aware of my desire to improve.

Helped me to narrow my interests, therefore deciding my major. Made me decide that I would need a master's degree instead of an Associate Degree.

13. Student Comments (Continued)

Measurable goals are good.

The course made me think more about improving myself at my job. I thought about everything I did, including whether I was efficient enough.

I am better able to organize my work and set goals for things to accomplish. Received a promotion.

It made my work a lot easier.

I found my job on one of the tours.

Better rapport with employer--learned more skills involved with my job.

It taught me to be more aware of what I was learning and it further developed an increasing goal of what more I could possibly do towards helping out on my job. Plus it benefitted me to find out all that I could from entering and holding many other occupations.

Helps organize thinking into areas of obtainable goals.

Ideal for developing into a better employee as well as for moving up the ladder.

Outlining and fulfilling objectives.

After taking co-op, increased earnings by $7,000, changed jobs, and know my goal in life.

Letters of recommendation and paid job possibilities.

Practical on-the-job experience to apply classroom learning to actual situations.

Made me more aware of goals and methods.

Induced me to do research into unfamiliar portions of job-oriented subjects.

Good reference. I was hired full time.

Job insights and broader spectrum.

More units--practical experience, more references.

Awareness and appreciation of where I am at in my work situation.

Greater knowledge of job and with communications.

Not much. Showed me what I didn't want to do.

Helped me to want to try harder and to do a better job.

Opportunity to discuss goals.

Made supervisor aware of my educational goals by involving him directly. It made a difference in my last salary review.

A raise and a good review from my supervisor.

14. Comments from students about their problems with employer or coordinator

Note: Critical remarks have been retained, as stated by students, without further documentation.

With Coordinator_____ it seems that he didn't want to accept the fact that I am self-employed and money being my main objective, I was given a bad time about this objective and I believe this is number one to me.

There were personality conflicts among the employees where I worked at that time.

The employer found the objectives slightly amusing rather than a serious undertaking.

She wanted me to make a summary of work every night, and there's no way I was going to do that at 1:00 a.m.

A lack of understanding or direct contact with my employer made my evaluation poorer than my fellow workers and supervisors saw necessary.

My college coordinator didn't help with development of objectives.

This is April and my coordinator has not yet visited my place of work.

We haven't had a seminar yet this semester, nor had _____ visited me; last semester _____ visited twice.

Coordinator was not as available as I would like him to have been.

He did not show for a meeting due to illness, he should have phoned cancellation.

Field trips sometimes didn't relate to much.

With regard to on-the-job training or constructive supervision during the internship, more attention should be given to the student.

Coordinator made demands but did not give any assistance when students needed it.

Coordinator was a moron.

Unable to contact coordinator.

Employer unable to cope with problems she encountered.

Lack of concern, interest, and follow-up by coordinator.

My coordinator evidently has a good deal of difficulty coordinating his own job.

CAÑADA COLLEGE CO-OP STUDENT

12—San Mateo THE TIMES Thursday, June 6 1974

Educational Dream Come True

As a child Virginia McDaniel dreamed of being a teacher, but fate intervened.

"By the time I was 16, I had to find a job," she said. "My mother had died and I was the oldest of five children. Then I married at 18."

After that she began raising a family and working in an electronics firm to supplement the family income.

Today, many years, six children and six grandchildren later, the San Carlos woman has a chance to realize that childhood dream.

Last year Mrs. McDaniel read an article in the paper on the Right to Read Program about to be adopted by the San Carlos elementary schools. The program, funded by the National Reading Society, was asking for volunteer tutors.

The idea appealed to her, she signed up, attended several workshops and, in September 1973, began work as an aide at Laureola School in San Carlos.

The experience has been so rewarding that in February Mrs. McDaniel enrolled at Canada College with plans to work for a nursery school assistant certificate and, possibly, one in special education.

"I've been looking for something for a long time," she said in a recent interview. "I know I'm on the right track now."

Through the college's cooperative education plan she will receive college credit for the work she does at Laureola School. To qualify for credit she must spend at least 20 hours a month in tutoring, preparation and participation in training meetings. Her cooperative education sponsor, Assistant Superintendent Thomas Sullivan, will submit a report on her work at the end of the semester.

Virginia McDaniel works with one of her young students at Laureola School in San Carlos.

In addition Mrs. McDaniel takes three courses on campus — Child and Family, Nursery School Principles and Practices and General Psychology. She averages 10 hours a week on homework and loves the challenge.

"The more schooling I get the hungrier I get," she declared. "I'm feeling the same as I did at 14. I want to learn more and more."

Since her involvement in the Right to Read Program Mrs. McDaniel spends Monday mornings at the school working with three first and second grade youngsters who are having difficulty in reading and language. She spends 45 minutes with each child in a small, quiet room away from the rest of the class.

Two of the children, who are typical of a number of Laureola youngsters, are learning English as a second language.

The children revel in the one-to-one relationship with the gentle, but firm, Mrs. McDaniel. She uses a variety of teaching aids including some she makes herself.

A morning's activities might include playing word games ("What's a kind of transportation that rhymes with crane?"), playing phonics bingo with a bright green card and a jar of candy red hots and working in a language workbook.

When the child slows down in responses she may change to another activity or, with a gentle motion to the child's head, say, "Let's screw on that thinking cap."

Her work with the children has been so well received that she has been hired as a paid aide for Laureola School beginning April 29. Under the new plan she will work 3½ hours each school morning, while continuing her Right to Read volunteer work Monday afternoons. The prospect of new challenges is an exciting one for Mrs. McDaniel. "I didn't even ask how much they pay," she said.

As a parent-education project for her college nursery school class Virginia McDaniel has become involved with a county-sponsored Day Care program in Redwood City. She serves as a resource person for a day care babysitter who is trying to upgrade her skills.

"I educate her on how to educate the children," she said. "I see her once a week to bring her ideas and show her how to plan time for learning activities." For Mrs. McDaniel it means 2 to 3 hours weekly of planning and demonstrating. For the children, who range in age from 2½ to 9, it means new activities such as making playdough, using plaster of paris and making puppets out of scraps.

Mrs. McDaniel's work background includes 13 years with two electronics companies, one of them Sarinon in San Carlos where she worked for six years.

Five years ago, after a second marriage and the addition of two stepchildren to her own four, she quit work and began spending time in volunteer activities such as Traveler's Aid and Redwood Parents' Cooperative Nursery School where she taught dancing.

She suspects that she will eventually be a special education teacher. "I am attracted to the child with a problem," she said. "I seem to have a facility for drawing them out."

BI-LINGUAL AIDE INTERN PROGRAM

The number of Spanish-speaking students in California each year grows significantly larger. In San Mateo County the percent of Spanish-speaking, Spanish-surnamed population has grown from 4.5% to 11.5% between the years of 1960-1970. The elementary schools have not been and are not able to cope with the rapid growth of Latinos. In order to help meet the growing demand for bi-lingual assistance in the classroom, and in order to encourage college bi-lingual students to be aware of the field of teaching, the Bi-lingual Aide Intern Program has been developed.

Bi-lingual Aide Interns are placed in cooperative work stations at schools that have such a need. They work under the direct supervision of the classroom teacher with guidance from a bi-lingual cooperative education coordinator.

Types of work-learn educational experiences:

1. Meeting non-English speaking students and helping them feel "at home" by explaining in their native language the general expectations of students, by the school.
2. Instruct the non-English speaking student in English as a Second Language.
3. Act as an interpreter between the student, his peers, and teachers.
4. Act as liaison between the school and non-English speaking parents, when necessary.

S. A. I. PROGRAM FOR MINORITY AND DISADVANTAGED STUDENTS: STUDENT ADMINISTRATIVE INTERN, CANADA COLLEGE

Because of the low-level entry work that is done by a vast number of minority students and because a large number of these students progress slowly through the work ladder, it is felt that a different entry level of experience will provide new vistas and will be highly motivational, benefitting them substantially.

Basically, selected students are placed as interns with top level administrators in elementary and secondary schools, civic agencies, as well as in business and industry. The students spend a few hours each day with the administrator attending conferences, seminars, or discussions that are part of the administrator's normal routine. It is felt that these students will benefit from this level of contact, develop an improved insight as to the problems in administration, and by virtue of these improved horizons, raise their level of expectancy and increase their motivation.

Each student intern and administrator jointly develops a reasonable work schedule and work program. It is understood that the administrator will at times be engaged in an activity that must by its very nature preclude student participation. Otherwise students join in most activities as assigned.

NEW PROGRAM DEVELOPMENT: COOPERATIVE EDUCATION, CAÑADA COLLEGE

RESEARCH AND DEVELOPMENT ASSISTANT

(DD&E) Design, Development & Evaluation

The program in Research and Development Assistant is designed to train personnel who can assist in research investigation, development, evaluation and communication of results, applying innovative information gathering techniques to the changing community needs.

Skilled DD&E technicians can apply their knowledge of data analysis, summary, evaluation and communication to provide day-by-day or week-by-week decision making information for the purpose of improving operations of business, industry and public agencies. DD&E courses have general educational value to students in most major fields.

The program in Research and Development Assistant was developed by the Far West Consortium, a group of public and private research and development agencies in the Bay Area which has cooperated to help produce the program at Cañada College.

A basic part of the DD&E program is the opportunity for the student to participate in cooperative education at selected community agencies. Together, the student, his counselor and his prospective employer will set up a plan of work for which he will receive college credit and be paid.

CAREER OPPORTUNITIES

The A.A. degree in Public Service Careers with specialization in Research and Development (Design, Development and Evaluation) will qualify graduates for para-professional level jobs in schools, businesses, research organizations and other industries.

The program in Research and Development Assistant can be related to careers in public service, management, supervision, and education.

Social Science 10 – Interaction and communication for the Paraprofessional. Designed to develop human interaction and communication skills. These include listening and speaking skills such as: conference techniques, interviewing, briefing, specialized reading skills and writing methods used in note taking, technical writing, and formal and informal report preparation.

Social Science 11 – Introduction to Planning and Design. Introduces the student to the general concepts of planning and design techniques. Emphasis is placed on problem solving, research procedures, and adaptation to the resource limitations of the agency. The course also includes experience in applying these skills in an educational, research, industrial and/or business environment.

Statistics 1 (DD&E) – Information/Data Collection and Organization. Introduces the student to basic methods of collecting and presenting information. These include searching out, retrieving, and organizing documentary information, and the basic procedures for finding, organizing, analyzing and displaying data.

Social Science 12 – Evaluation and Analysis. Provides instruction in the methods and processes involved in preparing evaluations for management judgements or decisions. Focus is on the actual process of evaluation and on some of the methods for updating and evaluation on the basis of new evidence. Considerable time and attention is given to methods of condensing and digesting quantities of information in order to reach an adequate understanding of its significance and relevance. Case studies and projects will be included. Cooperative education experience opportunities are available.

Social Science 13 – Developmental Engineering. A skills-oriented course in which, through a series of selected developmental case studies, simulated tasks and projects, the student learns how to search out, evaluate and use data, materials, tools and resources to "put things together" (compile research) in new and purposeful ways.

EL CLAMOR

Información sobre Trabajo y Educación

PROGRAMA DE ASISTENTE DE MAESTRO

REQUISITOS: Para ingresar al Colegio de Cañada el estudiante debe ser: 1. Residente del Condado de San Mateo. 2. Mayor de 18 años. 3. No es indispensable haber completado la escuela secundaria.

PROGRAMA: El programa prepara a los estudiantes a realizar labores de asistente de maestro en las escuelas primarias. El programa está equilibrado entre cursos en el colegio y experiencia supervisada por el colegio, bajo el programa de Educación Cooperativa, trabajando como ayudante de maestro en adiestramiento en las escuelas del área. El programa comprende dos años de adiestramiento en conjuncion con el título de Asociado en Artes (A.A.)

GASTOS: Se anticipan los siguientes gastos para cada semestre: $3.75 por servicios de salud pagaderos al momento de registración, aproximadamente $30.oo para libros. Existen ciertas formas de ayuda financiera para estudiantes que tienen problemas economicos.

AYUDA TUTORIAL: Existe ayuda tutorial para estudiantes que tienen problemas con sus materias o con el inglés.

CAÑADA COLLEGE es uno de los tres colegios en el Distrito Escolar de San Mateo. El colegio ofrece una gama completa de títulos A.A. y programas de certificados que preparan a los estudiantes para empleo inmediato o para transferir a las universidades de cuatro años.

SI USTED DESEA EDUCARSE PARA CALIFICAR COMO ASISTENTE DE MAESTRO PUEDE DIRIGIRSE A:

Cañada College, 4200 Farm Hill Blvd., Redwood City, Ca. 94061, Teléfono: 364-1212

Dr. Melvin Pratt, Extensión 202
Mr. Bennett Kilpack, Extensión 216
Mrs. Eileen Smith, Extensión 295
Sr. Jaime Custodio, Extensión 300, 301 ó 302

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Educación Cooperativa · Colegio de Cañada
4200 Farmhill Blvd · Redwood City

PROGRESS INDICATOR 7.

EMPLOYER, STUDENT, COORDINATOR QUESTIONNAIRE
Summary of Responses from Cooperative Education at College of San Mateo
Information provided by Dr. Lois Callahan, Program Director

Dear Cooperative Education Employer:

Please place in the blank space before each statement the number that most nearly expresses your view. (Your answers should be based on the period between September 1, 1973 and February 1, 1974)

Agree or Highest		Average		Disagree or Lowest	Don't Know
5	4	3	2	1	x

3.9 1. The Cooperative Education concept is an excellent method of teaching students.

2.7 2. Cooperative Education is important in the development of our company.

3.3 3. Company top management is aware of Cooperative Education.

3.2 4. Cooperative Education work stations require no additional budget consideration.

2.7 5. Cooperative Education students require less supervisory time than other employees.

3.1 6. Cooperative Education students are more highly motivated than other employees.

2.9 7. Cooperative Education students have a fundamental understanding of the job processes and technology necessary to become productive more quickly than other employees.

1.8 8. In most cases when a work problem occurred with a cooperative education student, you contacted the coordinator.

9. The CSM coordinator's visits with you were:

3.5 A. Timely
3.9 B. Congenial
3.7 C. Conveniently scheduled.
3.6 D. Constructive

3.2 10. The coordinator solicited suggestions for improving the student's competence.

2.4 11. The coordinator served as a catalyst to increase productivity by the student.

2.6 12. The coordinator was knowledgeable about your company and its basic operation.

Please circle or fill in the appropriate answer for each of the following questions. (Again, your answers should be based on the period between 9/1/73 and 2/1/74.

No reliable answer. 13. In how many departments or new areas of each company did the co-op student (or students) work or gain experience?

14. Are you familiar with performance or learning objectives?

Yes 98% No

Yes	No		
92%	8%	15.	Did you evaluate the co-op student's learning objectives?
58%	41%	16.	Did the coordinator visit you at least twice during the semester?
27%	67%	17.	Has the coordinator attempted to secure additional work stations for co-op students?
	63%	18.	At the end of the semester, did the coordinator suggest new and expanded responsibilities for the co-op student?
	74%	19.	Have you used the job placement service at CSM?
9%	85%	20.	Was the coordinator instrumental initially in helping the co-op student to get the job with your company?
	72%	21.	Has the coordinator ever invited you to visit the CSM campus?

Dear Student:

We are attempting to improve Cooperative Education at the College of San Mateo. Since you were involved in the program during the Fall 1973 semester, you can help us by completing this questionnaire and returning it promptly in the enclosed self-addressed, postage-paid envelope. Thank you.

Place in the blank space before each statement the number that most nearly expresses your view. (Your answers should be based on the Fall 1973 semester.)

Agree or Highest 5	4	Average 3	2	Disagree or Lowest 1	Don't Know x

1.9	1.	A regularly scheduled coordinating class would have helped improve the work program.
2.4	2.	A letter grade for the co-op course would be preferable to the CR/NCR.
	3.	Your final grade, in part, was based on the items listed below. Please rate the importance of these items.
4.0		A. Learning objectives
3.5		B. The term project
3.4		C. Total number of hours worked
2.8		D. Attendance at class meetings and seminars.
4.3	4.	Considering the above items, the coordinator was fair in assigning your final grade.
3.6	5.	The coordinator was helpful to you in developing your learning objectives
4.5	6.	The co-op course requirements were made clear to you at the beginning of the semester.
3.0	7.	The coordinator helped you to improve and learn on the job.
3.6	8.	Please rate your coordinator's mastery of cooperative education coordination techniques.

3.2 9. How would you rate your coordinator's knowledge of your work station?

3.6 10. In comparison to all other teachers you have had at this college, how would you rate your coordinator?

Please circle or fill in the appropriate answer for each of the following questions.

11. How many employers did you wor for this semester?
1; 109; 2 - 9; 3 - 6; more than 3: 1

Yes	No		
65%	26%	12.	The term project was a useful learning device to you in this co-op class.
		13.	Please indicate the number of times your coordinator met with you in:
			A. Individual conferences: 0 - 0.8%; 1 - 21.3%; 2 - 33.6%; 3 - 29.5%; 4 - 14.0%; more: .8%
			B. Seminars: 0 - 61.3%; 1 - 20.2%; 2 - 8.1%; 3 - 3.1%; 4 - 0%; more: 0%; N/A - 7.3%
			C. Informal groups: 0 - 64.5%; 1 - 12.9%; 2 - 8.1%; 3 - 0%; 4 - 1.6%; more: 1.6%, N/A - 11.3%
2%	98%	14.	The coordinator helped you to get your job.
71%	28%	15.	The company you worked for gave you an opportunity to gain experience in more than one department or area.
89%	11%	16.	Your learning objectives were evaluated by the supervisor at work..
86%	15%	17.	Your coordinator encouraged you to seek his help when necessary.
86%	14%	18.	You were able to see the coordinator during his regular (posted) office hours.
72%	25%	19.	Your coordinator visited your place of work at least twice during the semester.
64%		20.	The coordinator communicated to you the results of the employer visits and interviews.
23%	62%	21.	The coordinator had actual work experience in the same type of work that you were doing.

Dear Coordinator:

We are attempting to improve the Cooperative Education program at the College of San Mateo. Since you were involved in the program during the Fall 1973 semester, you can help us by completing this questionnaire.

Please place in the blank space before each statement the number that most nearly expresses your view.

Agree or Highest		Average		Disagree or lowest	Don't know
5	4	3	2	1	x

1. Final credit for the co-op course was based on learning and objectives a term project, the number of hours worked, and coordinator meetings.

Please rate the importance of these items.

4.3 A. Learning objectives
3.5 B. Term Project
2.7 C. Number of hours worked
3.0 D. Meetings with coordinator

2. A regularly scheduled coordination class would improve Cooperative Education for the student. This class should:

1.1 A. Meet one per week
2.7 B. Meet twice per month
2.0 C. Include all of your co-op students
3.5 D. Be with small groups according to occupation or work classification
1.0 E. Include the employer
3.7 F. Other

2.4 3. Students sought your help especially when they were having problems.

4.2 4. You were available to your co-op students during your regular posted office hours.

1.6 5. A letter grade for the co-op course would be preferable to the CR/NCR.

3.0 6. The coordinator helps the students to integrate theory and practice via the work experience.

4.5 7. The coordinator helped the student to add to the quality of the

3.9 8. Coordination activities helped the coordinator to learn about current useful information, especially from the employers.

3.1 9. You assisted your students in thinking about their career choices.

2.6 10. The studentload per section was too high.

3.1 11. Geographic location of work stations adversely affected coordination.

3.4 12. During regular employer calls you tried to locate additional work stations.

4.2 13. The coordinator helped to improve the employer-college-employee relationship.

4.5 14. It would be beneficial to coordination activities if the coordinator had some actual work experience in those areas where most of his students were employed.

3.4 15. A coordinator should maintain functional departmental and personal records and reports.

3.7 16. A coordinator has a responsibility to promote Cooperative Education to administration, faculty, students, employers, high schools, and the community.

3.1 17. As a coordinator you participated actively in at least one community organization.

1.3 18. Cooperative Education course requirements are equivalent to other courses at CSM.

3.8 19. A promotional type brochure on cooperative education would assist in making employer calls.

Please circle the appropriate answer.

Yes	No		
54%		20.	Did you disseminate occupational information in order to assist students in making wise choices, plans, and adjustments relative to career planning?
80%		21.	Did you serve as a referral agent in cases where there were special counseling problems?
27%	73%	22.	Were you instrumental initially in securing any of the jobs for your co-op students?
94%	6%	23.	Were the learning objectives evaluated by the employers for all of your students?
60%	40%	24.	Two personal visits were made by you to each of the employers of the employers during the semester.
93%		25.	The coordinator's handbook was a helpful guideline.

Please fill in the appropriate answer for the following questions.

26. Please indicate the number of students who changed jobs during the semester.
0 - 3; 1-1; 2 - 6; 3 -4; 4-0; 5 -1

27. How many of the following types of meetings did you have?

No reliable answer

A. Individual conferences
B. Seminars
C. Informal groups

No reliable answer 28. How many of your co-op students had an opportunity for a variety of experiences and/or worked in more than one department at each company?

28 29. How many of your students had poor or unpleasant work experiences?

30. Please list any suggestions which would make cooperative education or the coordinator's job more effective.

CLASSIFICATION OF COOPERATIVE EDUCATION WORK STATIONS

CSM

FALL - SPRING 1973 - 1974

JOB TITLES	AGRICULTURE FORESTRY FISHERIES	CONTRACT CONSTRUCTION	MANUFACTURING	TRANSPORTATION	COMMUNICATIONS	RADIO AND TELEVISION	UTILITIES	WHOLESALE AND RETAIL TRADE	BANKING	REAL ESTATE	INSURANCE	SERVICES	GOVERNMENT
airline mechanic				30 / 3									
airline supervisor				27 / 3									
apt. building manager		1											
appraiser													
assistant manager	2	2 2	2 2	2			1	5 1	3 1	2	1 2	3 1	
asst. operations officer				1									
barber													
bartender													
beautician													
bookkeeper		1	4 4	3 3		1 1		2 1	3			2 1	
bowling alley pinsetter												2	1 1
builder		2 2										1	
butcher	1							1					1
carpenter		2											
cashier		1	1					5 4				1 1	
claims investigator												1	
clothing coordinator												1	
computer operator								1					
cook			2 8	1 1	1		1		1		1	2	1 2
counselor												11 5	
credit clerk									1			1	
customer service rep.			1	4			2	2	1				
customs inspector													
delivery clerk	2		2	1 1	1			5 1	1	1		4 2	2
department store security								2				1	
dental assistant												4 1	
dispatcher								2					
draftsman		1 1	1 9		1		1	1				1	1 1
dressmaker													
drug abuse counselor												1 1	
electrical engineer			2									1	
electrician's helper			3				3						
electronics technician			10 4	2 1	2 1	1			1			3 4	
engineering aide			1	3	1								
engineering technician	1	2	3 2	2 4	1								1 1
escrow officer									2 1			1	1 2
film coordinator asst.												1 1	
fireman													22 18
flight traffic officer				1									
florist								1					
gardener	2	2						4 4				1	3 3
general office clerk	1 1	1	4 4	2 1	2			4 1	5 7	1	2 2	12 8	1 1
glazier				1									
graphic engineer					1								
grocery clerk								18 17					
hospital lab assistant												1	
investigator								1				2	2 1
hostess								1				3 1	
hotel clerk												3 2	
installer			2				4 3	1					
janitor		1	1									5 4	1
keypunch operator													
laboratory technician			1 1		1				2 1			1 1	
laminator			1										
library aide			1 1									3 3	
machinist			21 8	1	13		1						3 2
machinist's helper			3	1									
mail clerk				1	1				2 1				1 1
map maker				1									
materials analyst				1									
mechanic			1	3 4	2		5	1					1
mechanic's helper				2			1 4						
medical assistant												9 20	
meter reader							1						
musician					1 4								
newspaper production man			1		2								
nurse's aide												4 8	
office boy			1 1	1									
operations supervisor				1 4			1		1 2				
order clerk	1				1								
painter		1 1		2									
pilot				1									
passenger ramp service agent				15 18									
proofreader					1								
photographer												2 2	
policeman													25 28
postal clerk													16 13
printer			1		1 2								
production manager			4 1	1 5	1				1 3				
proof of deposit operator							1 1						
public relations clerk													
purchasing agent			1 1										
quality control clerk			1	1 3	1			1					
radio technician						1							
receptionist			1										1 2
recreation leader				1			2 3	1				12 13	1
repairman								119 90				2 1	1
sales clerk			2	2									
salesman or woman			9 10	1 1	2		1	2 3		9 16	1	1	
school bus driver												4 3	
secretary		1	2 4	5				3 2	2 1			3 3	1
serviceman			1	18 2			4 6					2	
shipping - receiving clerk			1 1	1				2	1				
silk screener			1										
small business manager		1 1	1 2	1					2			2	
splicing operator							1 5						
stock controller				3 9	2 1		2	8 6			1		
teacher aide												38 34	
telephone operator							4 3					1 1	
television technician					1	2							
television program director						1							
television aide					1 1				7 4				
teller												2	
ticket agent								1					
vacuum cleaner demonstrator													
waitress			1 2					2 12				5 5	
warehouse clerk			1									1	
x-ray technician assistant													

TOTAL STUDENTS
FALL 733
SPRING 688

Student Questions and some Answers

WHAT IS COOPERATIVE EDUCATION?

Cooperative Education at CSM is a part of the academic process. The "Coop" classroom is off-campus in industrial, governmental, educational and other business or service organizations. As the name implies, Cooperative Education is cooperation among the community (employers), students and the college. The primary objective of the program is to give students practical experience working with others in the community while they are in school.

WHAT ARE THE THREE PLANS OF CO-OP?

Alternate semester (two students holding one full-time job in a year): Alternating between school and the work station, each student spends one semester on campus and one off. While off campus, the student is considered as a full-time enrollee at the college.

Parallel: Scheduling at the work station provides students concurrent part-time work experience and on-campus classwork during the same semester.

New Careers: Holding a full-time job, evening college students may enroll in Cooperative Education by special arrangement.

HOW DO I ENROLL?

Enrollment in Cooperative Education – either Career-related ("47" series) or general work experience (Co-op. Ed. 1 or 2) – should be done when registering for other classes. Provision will be made for late registration at the start of each semester until the last day on which any other class can be added.

IF I DON'T HAVE A JOB, HOW DO I GET ONE?

You may come to Cooperative Education and/or Student Placement for help in securing a job. Should you get one in this or any other way before registration closes, you then become eligible for possible registration in Cooperative Education.

CAN I BRING MY OWN WORK STATION?

Yes, you may bring your own job to the Cooperative Education Department for evaluation. If it is judged to have learning values, you will be enrolled in the program, provided your employer agrees to cooperate with the college in supervising and evaluating your work performance.

WHAT UNITS AND GRADE DO I GET?

Students with a career-oriented work station (the "47" series) are eligible to earn 1-4 units of Co-op. Ed. per semester up to a total of 16 units. Students with general work experience jobs (Co-op. 1 and 2) are eligible to earn 1-3 units per semester up to a total of 6 units. Grading is Credit or No Credit, a system in which grade points are not involved. Units are calculated as 1 unit of credit for each 5 hours worked per week throughout the semester.

WHAT DO I DO TO EARN UNITS?

Co-op. Ed. units are awarded for what is learned on the job, not for just having a job. At the start of the semester, learning objectives for that semester are developed by the student in collaboration with the employer and the teacher-coordinator. Attaining these objectives is the basis for the employer's evaluation of your work. The teacher-coordinator assigns the grade earned on the basis of a favorable employer rating(evaluation) as well as a satisfactory written report relating to the work station and the learning objectives.

ARE COOPERATIVE EDUCATION UNITS TRANSFERABLE?

Career-related units ("47" series) are accepted (up to a total of 12) by each of the member schools of the State University System and by some private schools.

IS THERE ANY SPECIAL SUPERVISION?

Yes, by your work supervisor and by a CSM teacher-coordinator. Each student is assigned to a coordinator who works with the student and his employer to help you, the student, have a valuable learning experience on the work station.

ARE THERE ANY OTHER VALUES TO ME?

You have the opportunity of learning how to work with others in real life situations and can relate your experiences to your academic classes as you take them. The work experience also will help you decide just what vocation you do want to pursue before you have completed requirements for a specific major. And, of course, you can earn money to help you pursue your academic goals.

PROGRESS INDICATOR 8

DISTRIBUTION OF STUDENTS BY AGE, MALE-FEMALE, DAY-EVENING, GENERAL, AND VOCATIONAL
SKYLINE COLLEGE, COOPERATIVE EDUCATION, Spring Semester, 1974

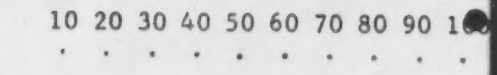
TOTAL STUDENTS	Male	576/851 - 68%
	Female	275/851 - 32%
	General	203/851 - 24%
	Vocational	648/851 - 76%
DAY STUDENTS	Male	308/528 - 58%
	Female	220/528 - 42%
	General	203/528 - 38%
	Vocational	325/528 - 62%
DAY STUDENTS OVER AGE 21	Male	143/528 - 27%
	Female	62/528 - 12%
	General	51/528 - 10%
	Vocational	154/528 - 29%
DAY STUDENTS UNDER AGE 21	Male	165/528 - 31%
	Female	158/528 - 30%
	General	152/528 - 29%
	Vocational	171/528 - 32%
EVENING STUDENTS, TOTAL	Male	268/323 - 83%
	Female	55/323 - 17%
	General	0/323 - 0%
	Vocational	323/323 - 100%
EVENING STUDENTS OVER AGE 21	Male	259/323 - 80%
	Female	38/323 - 12%
	General	0/323 - 0%
	Vocational	297/323 - 92%
EVENING STUDENTS UNDER AGE 21	Male	9/323 - 3%
	Female	17/323 - 5%
	General	0/323 - 0%
	Vocational	26/323 - 8%

PROGRESS INDICATOR 9

EMPLOYERS PROGRAM RATING SHEET

Three College Sample N = 146

(n=146)



1. Many reports indicate that community colleges are increasingly serving as manpower labor pools of young, capable talent.
   - 41 Strongly Agree
   - 83 Agree
   - 16 So-so
   - 6 Disagree
   - 0 Strongly Disagree

2. Students are being supervised in an effective manner by the college.
   - 14 Strongly Agree
   - 54 Agree
   - 59 So-so
   - 18 Disagree
   - 4 Strongly Disagree

3. Classes taken at the college are effective in the employee's training.
   - 21 Strongly Agree
   - 77 Agree
   - 35 So-so
   - 13 Disagree
   - 0 Strongly Disagree

4. There is a potential for promotion and career development for cooperative education employees in your firm.
   - 41 Strongly Agree
   - 73 Agree
   - 19 So-so
   - 6 Disagree
   - 4 Strongly Disagree

5. Cooperative Education students are interacting favorably with your regular employees.
   - 48 Strongly Agree
   - 77 Agree
   - 15 So-so
   - 0 Disagree
   - 1 Strongly Disagree

6. Your firm expects to continue with the Cooperative Education program.
   - 50 Strongly Agree
   - 85 Agree
   - 5 So-so
   - 0 Disagree
   - 2 Strongly Disagree

7. Cooperative Education should be developed further in your company.
   - 31 Strongly Agree
   - 81 Agree
   - 21 So-so
   - 6 Disagree
   - 2 Strongly Disagree

8. Supervision of Cooperative Education students by your employees is comfortable and effective.
   - 31 Strongly Agree
   - 91 Agree
   - 18 So-so
   - 4 Disagree
   - 2 Strongly Disagree

9. Present employees are motivated to enroll in college courses for further upgrading and retraining by their interaction with Cooperative Education students.
   - 23 Strongly Agree
   - 51 Agree
   - 38 So-so
   - 23 Disagree
   - 4 Strongly Disagree

#61

STUDENT REPORT

(TO BE FILLED OUT BY STUDENT)

INSTRUCTIONS: The student should complete this portion of the report form and leave it with the employer for his evaluation. The employer should mail this form to the College in the accompanying self-addressed envelope.

Date August 15, 1973

Name Smith, James R.
(Last) (First) (Middle)

College San Mateo Major Aeronautics Year Soph Division A

Employing Firm S.F. Bay Airlines

Department Maintenance Job Title Stock Clerk

Supervisor's Name R. Jones Title Mgr.

Attendance: Time Late 0 Reason —
Times Absent 1 Reason Illness

Gross Pay: Hour $2.21 Gross Pay
Week $88.40 Full Period $1149.20

Brief Job Description:

I am in charge of ordering & stocking of parts & materials for the maintenance division.

Comments:

For my next Coop assignment I have been advanced to the engine repair division.

EMPLOYER'S EVALUATION

(TO BE FILLED OUT BY EMPLOYER)

The employer will please express his candid opinion of this student as a worker in his employ. Criticisms and comments are earnestly solicited. This information will be utilized by the co-ordinator for the guidance of the student.

RELATIONS WITH OTHERS
- [X] Exceptionally well accepted
- [ ] Works well with others
- [ ] Gets along satisfactorily
- [ ] Has some difficulty working with others
- [ ] Works very poorly with others

ATTITUDE — APPLICATION TO WORK
- [ ] Outstanding in enthusiasm
- [X] Very interested and industrious
- [ ] Average in diligence and interest
- [ ] Somewhat indifferent
- [ ] Definitely not interested

JUDGMENT
- [ ] Exceptionally mature
- [X] Above average in making decisions
- [ ] Usually makes the right decision
- [ ] Often uses poor judgment
- [ ] Consistently uses bad judgment

DEPENDABILITY
- [X] Completely dependable
- [ ] Above average in dependability
- [ ] Usually dependable
- [ ] Sometimes neglectful or careless
- [ ] Unreliable

ABILITY TO LEARN
- [ ] Learns very quickly
- [X] Learns rapidly
- [ ] Average in learning
- [ ] Rather slow to learn
- [ ] Very slow to learn

QUALITY OF WORK
- [X] Excellent
- [ ] Very good
- [ ] Average
- [ ] Below average
- [ ] Very poor

ATTENDANCE: Reg. [X] Irreg. [ ]

PUNCTUALITY Reg. [X] Irreg. [ ]

OVERALL RATING: Excellent [X] Very Good [ ] Average [ ] Marginal [ ] Poor [ ]

COMMENTS (over if necessary)

Jim has proven to be an excellent employee. He is now in line for advancement.

(Signed) Robert N. Jones
(Company Representative)

This report has been discussed with the student Yes [X] No [ ]

Cooperative Education

Employer Evaluation of Student On-The-Job Performance

(N = 650 student evaluations)

		Value to the Employer Measured on a 5.00 Judgment Scale	
RELATIONS WITH OTHERS	Exceptionally well accepted	4.22	34%
	Works well with others		56%
	Gets along satisfactorily		9%
	Difficulty working with others		1%
	Works very poorly with others		—
JUDGMENT	Exceptionally mature	3.79	21%
	Above average in making decisions		37%
	Usually makes the right decision		41%
	Often uses poor judgment		1%
	Consistently uses bad judgment		—
ABILITY TO LEARN	Learns very quickly	4.24	41%
	Learns rapidly		42%
	Average in learning		16%
	Rather slow to learn		1%
	Very slow to learn		—
ATTITUDE APPLICATION TO WORK	Outstanding in enthusiasm	4.00	23%
	Very interested and industrious		57%
	Average in diligence and interest		17%
	Somewhat indifferent		2%
	Definitely not interested		1%
DEPENDABILITY	Completely dependable	4.18	43%
	Above average in dependability		33%
	Usually dependable		21%
	Sometimes neglectful or careless		2%
	Unreliable		—
QUALITY OF WORK	Excellent	4.21	35%
	Very good		51%
	Average		14%
	Below average		—
	Very poor		—
OVERALL RATING	Excellent	4.10	34%
	Very good		53%
	Average		11%
	Marginal		1%
	Poor		—
ATTENDANCE	Regular		97%
	Irregular		3%
PUNCTUALITY	Regular		97%
	Irregular		3%

PROGRESS INDICATOR 10

NEW CAREERS FOR WOMEN THROUGH COOPERATIVE EDUCATION

Community colleges can provide leadership in opening the doors to new employment opportunities for women. Through cooperative education it is evident that careers for women can be improved.

Mrs. Tannisse Rost of the Evening Division of Cañada College provides the following report on the need and opportunity for new development.

"The life expectancy, employment life expectancy, marital and childbearing patterns of American women have undergone drastic changes in recent decades. In turn those changes have had a massive impact not only on the women but on the individuals and institutions around them--their husbands, children, employers, helping agencies and educational institutions. It comes as a shock to realize that women themselves and the society around them are largely unaware of the impact of these changing life patterns and how to plan wisely to deal with them."

> Women today live substantially longer than their counterparts half a century ago. The life expectancy of a woman in 1900 was 48 years--2.8 years longer than her husband. Today that life expectancy is 75 years and still climbing!
>
> About half of today's young women are married by age 20; they will have had their last child by about age 30; and by the time the youngest child is in school, the mother will have close to 40 YEARS OF LIFE AHEAD TO PLAN FOR.
>
> In 1920 the average woman worker in the nation was single and 28 years old. In 1968 the median age was 40 and the average woman worker was married.
>
> More than half of today's young women will work full time for 25 years or more.
>
> The percentage increase of California women workers in the last nine years has been nearly 50%. (48.3)
>
> The overwhelming majority of California women workers are members of the work force from economic necessity and women workers tend to be concentrated in low-paying jobs.
>
> The number of women-headed families on welfare in California has nearly doubled in the last two years. In 1968 the number of such families was 158,000. In 1970 the number had increased to 296,000.

At the turn of the century, women workers in California accounted for 13% of the work force. In 1970 3,000,000 California women worked outside the home and comprised over 37% of the total work force. The trend is not a temporary phenomenon. Between 1960 and 1970 their numbers increased by 55.5%.

The number of divorces granted in California during the last decade has increased by 148%. From 1960 through 1970, 678,000 final decrees of divorce were granted, and 60% of the families involved had children under 18.

More than 1 in 10 families in the nation are headed by a woman, and women-headed families have increased by 24% during the last decade. 36%--numbering 1.8 million women-headed families--had incomes below the poverty level in 1970.

More than a million children in California need child care because their parents work, and the total capacity of licensed or supervised childcare facilities, whether public or private, profit or non-profit, will accommodate only 125,000 children.

42% of California's teenage girls doubt their ability to be successful in chosen fields of work, and most do not see themselves as achievers.

Teenage girls lack understanding of the need for retraining or education as they grow older.

In one California Status of Women Commission study, teenage girls were asked for their view of their futures. Only 31% planned on college; a scant 3% saw a need for education or training at age 30, and only 2% at age 40.

"The cause-and-effect relationship of these facts and conditions is clear. Girls who do not see themselves as achievers don't get education or training for work with much economic potential. If they are divorced and have small children, lack of child care at a cost they can afford often places them in poverty or welfare.

"Because a working mother must care for home and children in the evening, added education for a higher-paying career is difficult if not impossible. Cooperative Education in community colleges is one effective solution to this problem for women."

Progress Indicator 11

BROCHURES, COOPERATIVE EDUCATION

Put it All Together with Cooperative Education

Cañada College

Mr. Ted Gilman, Assistant Dean

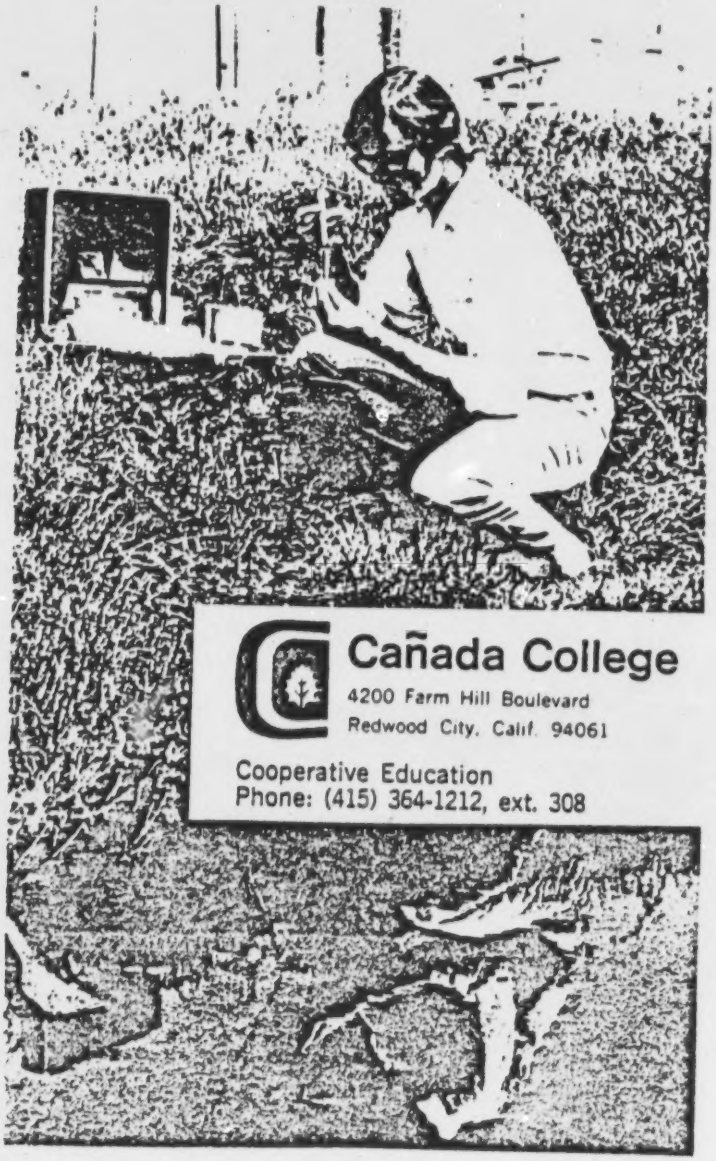
WHAT IS COOP ED?

Cañada College's Cooperative Education (Coop Ed) Plan answers the desire of college students to obtain practical job experience and to make a successful transition between school and work.

The long range aim of Cooperative Education is to provide current community and business work experience that give meaning and direction to the student's total educational experiences.

Career related on-the-job work experience strengthens the educational process through practical application of classroom theory. The inter-relating of work and study increases student motivation. As students see connections between the jobs they hold and the things they are learning on campus, greater interest in academic work develops.

All approved Cooperative Education work assignments are a regular part of the Cañada College educational program.



Cañada College

4200 Farm Hill Boulevard
Redwood City, Calif. 94061

Cooperative Education
Phone: (415) 364-1212, ext. 308

HOW IT WORKS

Students in the Coop Ed plan may earn one to four units of Coop credit in a semester. Credit is based on one unit for each five hours of work per week with a maximum of four units that can be earned per semester. A student may earn four units of Coop Ed credit for every 12 units completed from the general college course offerings.

Except in the case of the Alternate Semester Plan, students earning Coop Ed credit are required to be enrolled in no less than eight units including Coop Ed.

The possible variations of participating in the Coop Ed Plan are:

Parallel Plan: Students hold part-time, afternoon and evening, or swing shift jobs with appropriate college class loads.

Evening College New Careers: Special arrangements are made for studies related to full-time employment and new career goals.

Alternate Semester: Two students hold one full-time work station on a year-round basis. During each semester, one student is in school while the other works full time. This plan usually requires at least an extra semester to complete A.A. degree requirements.

COOP ED BENEFITS

Gaining knowledge by doing
Learning good work habits and attitudes while in career preparation
Receiving on-the-job counsel and guidance
Having a chance to stay in college when in financial need

DEGREE PROGRAMS

Coop Ed units satisfy a portion of the requirements for the A A. degree and are transferable to most of the state colleges.

COOP ED PROGRAMS AT CAÑADA

Programs at Cañada College which tie in with the Coop Ed Plan include:

Administration of Justice (Police & Corrections)
Business Administration
Business Management
Clerk-Typist
Commercial Art
Credit & Finance Management
Environmental Technology
Food Technology & Management
General Clerical
Home Economics
Home Furnishing Merchandising
Industrial Management
Mental Health Assistant
Merchandising Management
Nursery School Assistant
Public Administration Management
Recreation Education
Research & Development Assistant
Secretarial
Small Business Management
Social Service Community Worker
Special Education
Supermarket Management
Teacher Assistant
X-Ray Technology

CAREER-JOB PLACEMENT

Coop Ed at Cañada College offers students the opportunity through joint classroom and on-the-job training to better prepare for careers in all phases of business and community occupations.

When the Coop Ed program is completed, students have available to them a job placement office on campus to help place them in appropriate jobs

COOP ED INFORMATION

For additional information, contact your college counselor or the college Coop Ed Office in the administration building, 364-1212, ext. 308.

Cooperative Education Job Placement Program

SKYLINE COLLEGE
3300 College Drive
San Bruno, CA 94066

Mr. Floyd Elkins, Assistant Dean
Mrs. Maggie McBride, Director, Co-op Ed.

WHAT IS COOPERATIVE EDUCATION?

Cooperative Education recognizes the value of work experience to a student's academic endeavors and provides insight into many careers. Each year over one thousand Skyline students earn academic credit for their part or full time jobs through this program. Using their jobs as learning situations, the students join with their employers and the college in establishing learning objectives to be accomplished during the semester.

ADVANTAGES OF COOPERATIVE EDUCATION

The student gains in many ways from the Cooperative Education program.

1. Getting a permanent job after graduation will be easier for a student who can offer work experience in addition to college training to prospective employers. A Cooperative Education student will gain immediate recognition from the thousands of employers in this area participating in the program.
2. Accomplishing learning objectives on a job requires that a student **really** gain worthwhile experiences on the job. Special recognition and promotion are often by-products of working more closely with employers.
3. Students are given the time and incentive to explore vocational opportunities. This gives them more information for selecting a career goal and related college instruction.
4. During the Cooperative Education experience students receive special guidance in private conferences with their college coordinators and special attention from their employers.
5. Many working students find this is the only way a full college unit load can be maintained. This makes graduating a more readily realizable goal.

HOW MANY UNITS CAN YOU EARN?

Cooperative Education is a regular college course applicable to the Associate of Arts degree. One academic unit is granted for every 75 hours worked per semester. Students who are employed in work related to their major at school or their career goal may receive a maximum of 4 units per semester. A total of 16 units may be earned in the two year A.A. degree program. General work experience students who are employed in positions unrelated to their studies may receive a maximum of 3 units per semester but a total of only 6 Cooperative Education units towards their A.A. degree.

General work experience students must attend a Related Instruction Class one hour weekly. This is required to aid students in gaining career information, determining their own interests and aptitudes, and learning about job rights, interview techniques and other useful information.

HOW DO YOU REGISTER FOR COOPERATIVE EDUCATION?

Day students may register for Cooperative Education on regular school registration days. A table is set up on the registration line where class cards are picked up. Counselors will not add Cooperative Education to a student's schedule prior to this time because of the need to fill out a special application form and to be screened for eligibility.

Evening students may register from 6:00 p.m. to 9:30 p.m. during the first week of classes at the Cooperative Education Office in Building 1, Room 319. Because of the need for pre-screening, Evening College students may not register for this course through the mail as they do for other courses.

DO YOU NEED A JOB TO ENROLL IN COOPERATIVE EDUCATION?

Yes! BUT if you do not have a job, the Job Placement Office is committed to providing ample opportunities for you to get a job which is suitable for Cooperative Education units.

Any job in which the student is regularly supervised and which offers a learning experience conducive to the establishment of learning objectives is suitable.

JOB PLACEMENT

HOW DOES THE JOB PLACEMENT SERVICE WORK FOR YOU?

Over 3,000 new job openings are listed with the Skyline College Job Placement Office each school year. The Job Placement Office has a variety of jobs available, both part and full time in such fields as retailing, transportation, banking, insurance, food service and recreation leadership. Positions include sales, management training, secretarial, general clerical, warehousing, inventory control, professional assisting, and customer service.

WHO CAN GET IN THE PROGRAM?

DAY and EVENING students are eligible. There are three plans:

Parallel Plan:	Regularly enrolled day students work after school on a part or full time basis.
Extended Day:	Evening College students hold regular day time jobs while taking an appropriate class load in Evening College.
Alternate Semester:	Students work full time one semester without concurrently enrolling in other course work, provided that they have already earned an appropriate number of units and plan to return to regular class work in the following semester.

There are three unit rules governing eligibility for enrollment:

1. To enter the program for the first time, a student must have earned or be in the process of earning at least 12 units of other course work.
2. Every semester that a student enrolls for Cooperative Education, the student must enroll for a total of 8 units or more of course work, **including** Cooperative Education (except on Alternate Semester Plan – see above).
3. The student must maintain a ratio of 3 units of other course work (already earned or currently enrolled for) for every unit of Cooperative Education attempted.

WHO IS ELIGIBLE TO USE THE JOB PLACEMENT SERVICE?

All day and evening students currently enrolled at Skyline College may use this service whether or not they are enrolled in Cooperative Education. Graduates of Skyline as well as high school seniors who have committed themselves to coming to Skyline College are also welcome. Openings include part and full time, temporary and permanent employment. Students seeking employment should come to the Job Placement Office in Building 1, Room 223.

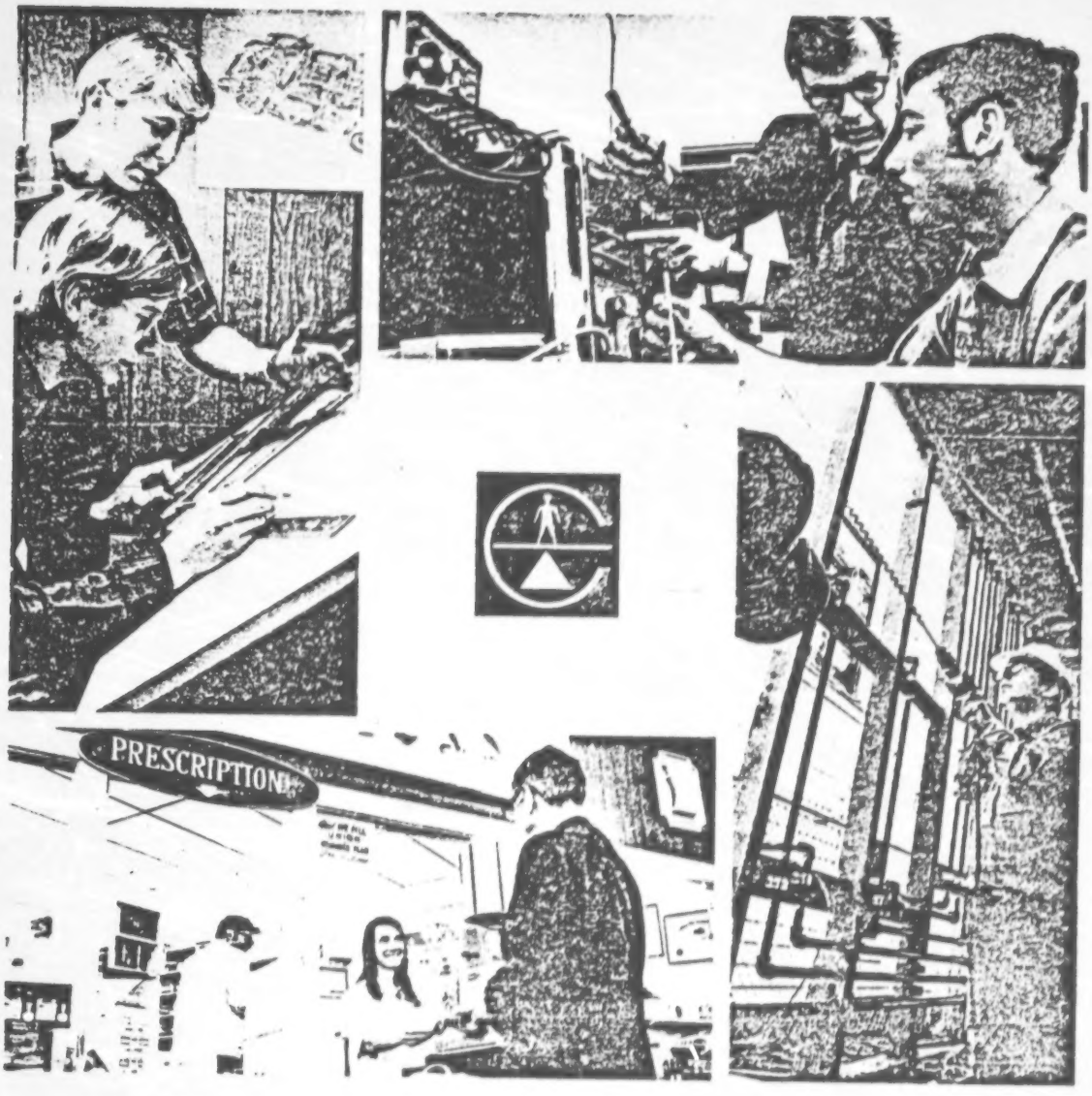
WHAT SPECIAL SERVICES DOES JOB PLACEMENT OFFER?

Students who are interested in secretarial positions that require a stated speed for typing and/or shorthand may be tested by a faculty member on the Skyline College Business Division staff. The results of the tests are then sent to the employers via the students when they go to their interviews.

A credentialed counselor is available to give students career guidance or help them with special problems. Through arrangement with your counselor, interest and aptitude tests may be taken by students who have not yet made career choices.

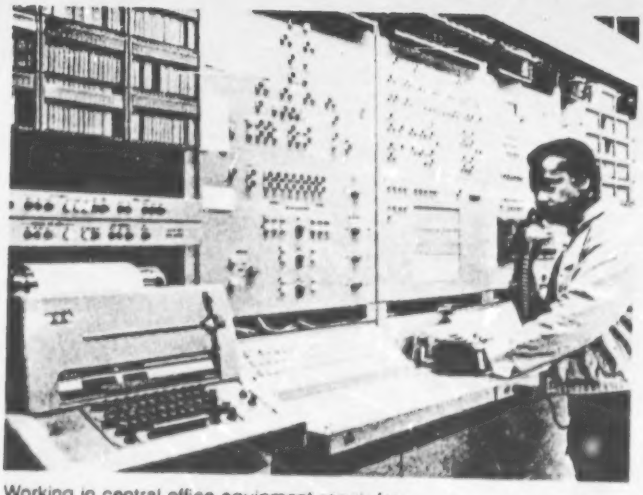
For further information write or call:

Cooperative Education Office: 355-7000, Ext. 238
Job Placement Office: 355-7000, Ext. 236



MORE THAN 500 EMPLOYERS PARTICIPATE IN COLLEGE OF SAN MATEO'S "COOPERATIVE EDUCATION" PROGRAM.

Assistant cashier, seated, explains computer print-out data to College of San Mateo "Co-op" student assigned as management trainee with a local branch of world-wide bank.



Working in central office equipment repair for communications utility, student majoring in electronics developed a trouble-shooting system that firm adopted for routine use in many of its offices.

Cooperative Education ("Co-op") at College of San Mateo brings students and employers in the community together for student work-experience that benefits all. For employers, Cooperative Education provides capable, highly motivated employees. For students, Cooperative Education offers an opportunity to enrich classroom learning through practical on-the-job training.

More than 500 employers are now in the program. They include nearly every type of retail, industrial, governmental and community organization in San Mateo County.

UNIVERSITY OF CALIF.
LOS ANGELES

NOV 7 1975

CLEARINGHOUSE FOR
JUNIOR COLLEGES

Pictured on the cover are four College of San Mateo "Co-op" students in as many different kinds of interesting work stations. Clockwise from upper left: (1) young man seated at drafting table, assigned as a designer with firm which manufactures original equipment, gets technical advice from his supervisor; (2) electrical engineering major discusses problem with executive in his job as installer technician for TV cable company; (3) electronics major is employed by a public utility to pre-wire new homes and apartments; (4) young woman, majoring in medical assisting, works for pharmacist in major drug store

Cooperative Education Advantages For Employers

Organizations which employ "Co-op" students from College of San Mateo find that:

- The program provides a ready and reliable source of trained full-time and part-time employees.
- "Co-op" students are motivated to be outstanding employees.
- Employing "Co-op" students gives employers an opportunity to screen them for possible permanent jobs in the future.
- Contacts with college instructors as well as "Co-op" students enable employers to make a significant contribution to career education.

How Cooperative Education Works For Employers

Employers have the opportunity to employ College of San Mateo "Co-op" students through three Cooperative Education plans:

"Parallel Plan" — Students work part time while concurrently enrolling in a regular class load at the college.

"Alternate Semester" — Students spend one semester on campus and the subsequent semester on a full-time work station with a Cooperative Education employer. Two students alternate on the twelve-month, full-time work station.

"New Careers" — Students hold a full-time job and attend classes part time at the college. (This plan is highly flexible, since College of San Mateo offers classes both day and night, the year around.)

Employers may secure motivated "Co-op" student employees for any of these plans by contacting the Cooperative Education office at College of San Mateo. Preliminary screening takes place at the college before students are referred to the employer. The employer, of course, makes the final screening and decision as to whom to employ.

Young woman, right, majoring in home economics, is employed as a salesperson at fashionable apparel outlet in big shopping center.

Computer science major gets valuable on-job experience in large data processing center.

Once a "Co-op" student is hired, the employer joins a college instructor as a "teacher," working jointly with the instructor to help the student learn and perform his work for optimum results. Actual on-the-job supervision is the responsibility of the employer alone. The college instructor advises the student on campus and consults with the employer, assisting to make the work-experience "pay off" for the employer as well as the student. Satisfactory achievement of objectives earns the student credit, and "Co-op" students must meet the same work standards as other employees.

How Cooperative Education Works For Students

Students benefit in many ways from participation in Cooperative Education, and all those ways add up to making them good employees:

- Using business, industry and government as off-campus "classrooms" gives "Co-op" students a rare opportunity to work with and on the latest in machines and equipment.
- Students gain visibility on the job through their "Co-op" projects.
- Students find that Cooperative Education employment teaches them work habits and ability to "get along" with others that are invaluable throughout their lives.
- The money "Co-op" students earn on a work station helps keep them in school.
- Working gives "Co-op" students an opportunity to establish and evaluate their career goals from a practical standpoint before they are committed completely, thus making any desired change in direction a relatively easy matter.
- Students who register in the Cooperative Education program at College of San Mateo are eligible to receive up to four units a semester while they are employed on a career-oriented work station. (Credit is earned on the basis of one unit for an average of five hours work per week over the span of the semester.)

For all the details on how Cooperative Education can work for you, phone the college, 574-6161, or write to: Cooperative Education Office, College of San Mateo, 1700 West Hillsdale Boulevard, San Mateo, CA 94402.

CSM Cooperative Education Work Stations Encompass the Following Job Titles

Airline mechanic
Answering service clerk
Apartment building maintenanceman
Appraiser trainee
Assistant manager
Assistant operations officer
Barber
Beautician
Bookkeeper
Bowling alley deskman and mechanic
Building inspector
Carpenter
Cashier
Claims adjuster
Claims investigator
Coin press foreman
Computer programmer
Cook
Coroner's laboratory technician
Credit clerk
Customer service clerk (complaints)
Customer service representative
Customs inspector
Delivery clerk
Department store security
Dental assistant
Draftsman
Drug abuse counselor
Electrical engineer
Electrician's helper
Electronics technician
Engineering aide
Engineering technician
Escrow officer
Fast food operation manager
Film packager
Fireman
Flight traffic officer
Florist
Gardener
General office clerk
Glazier
Golf instructor
Grocery checker
Hospital lab assistant
Hospital dietitian aide
Hostess
Hotel desk clerk
Installer
Keypunch operator
Laboratory technician
Laminator
Library aide
Machinist
Machinist's helper
Mail clerk
Map maker
Materials analyst
Mechanic
Mechanic's helper
Medical abstractor
Medical assistant
Meter reader
Motion picture producer
Newspaper ad compositor
Newspaper circulation supervisor
Occupational therapist
Office manager
Order checker
Painter
Park maintenance person
Passenger service rampman
Pest controller
Photographer
Policeman
Postal clerk
Printer
Production control inspector
Proof of deposit operator
Public relations clerk
Purchasing agent
Quality control clerk
Radio dispatcher
Receptionist
Recording engineer
Recreation leader
Repairman
Restaurant manager
Sales clerk
Salesperson
Seamstress
School bus driver
Secretary
Service station attendant
Shipping and receiving clerk
Silk screener
Small business manager
Stock controller
Teacher aide
Telephone operator
Television engineer
Television program director
Television newsperson
Television repairman
Teller
Ticket agent
Traffic operations supervisor
Vacuum cleaner demonstrator
Videofilm operator
X-ray technician assistant